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Sept.

Frontisp. to Vol. 2.

Deſi. by Boucher. *J. Mynde ſculp.*

The Vine
planted in Gaul.

87586

Spectacle de la Nature:

OR,

NATURE DISPLAY'D.

BEING

DISCOURSES

On ſuch PARTICULARS of

NATURAL HISTORY

As were thought moſt proper

To EXCITE the CURIOSITY,

AND

FORM the MINDS of YOUTH.

Illuſtrated with COPPER PLATES.

VOL. II.

Tranſlated from the Original *French*,
By Mr. *HUMPHREYS.*

The EIGHTH EDITION, Reviſed and Corrected.

LONDON,
Printed for R. FRANCKLIN, C. HITCH and L. HAWES, J. HODGES, JOHN RIVINGTON, JAMES RIVINGTON and J. FLETCHER, L. DAVIS and C. REYMERS, J. WARD, W. JOHNSTON, T. LONGMAN, and P. DAVEY and B. LAW. MDCCLVII.

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TO
Dr. *PELLET*,
PRESIDENT
OF THE
College of Phyſicians.

SIR,

As the Indiſpoſition, which oppreſſed me, when I firſt engaged in this Tranſlation, was happily extinguiſhed by your ſalutary Aid; I think myſelf obliged, in Gratitude, to preſent you with ſome of the Firſt-Fruits of that Health, to which you reſtored me, when my Friends were apprehenſive that my declining State would ſoon cauſe me to be numbered among the Dead.

How engaging a Benefactor to Society, are you daily rendered, by ſuch Obligations as you have lately conferred on me! and how ornamental is Learning, when it is thus devoted to the Welfare of Mankind!

To whom can the *Diſplay of Nature* be more properly inſcribed, than to a Gentleman, who is ſo eminently diſtinguiſhed for his profound Knowledge of her Operations, and his ſedulous Attention to her fineſt Syſtems; and who has long been indefatigable in collecting from her Treaſures ſo many beneficial Reliefs for the Children of Men?

As I have, therefore, taken the Liberty, Sir, to grace my Tranſlation of this Volume with your amiable Name; I may venture to hope it will obtain a candid Reception from the Publick, ſhould you happen to think it no unpleaſing Entertainment in your vacant Hours.

Your Approbation of the Original preſented me with a ſtrong Inducement to employ my beſt Endeavours to render my Verſion agreeable to an *Engliſh* Reader; and, indeed, the excellent *French* Author has diffuſed ſo much Beauty and Inſtruction through his Performance, as juſtly entitled it to my ſtricteſt Attention.

But I ought to conſider the Importance of your Moments to the Public; and ſhall therefore cloſe this Addreſs to you, with expreſſing my fervent Wiſh, that you may long continue a living Ornament to the Republick of Letters; and that thoſe, who are indebted to you for the in-eſtimable Bleſſings of reviving Health, and Serenity of Mind, may proclaim their Obligations to you, with the ſame grateful Pleaſure that glows in the Heart of,

SIR,

Your moſt Obliged

and moſt Obedient,

humble Servant,

SAMUEL HUMPHREYS.

AN EXPLANATION OF THE FRONTISPIECE.

AS *Solomon*, in the Frontiſpiece of the firſt Volume, whoſe Subject is Natural Hiſtory, was the moſt proper Example that could be introduced to authoriſe that Study; ſo no Repreſentation can be better adapted to this ſecond Volume, which comprehends all the Branches of Agriculture, than the Emperor *Probus*; to whoſe Care we owe the *Burgundy* and *Champaign*, the *Spaniſh* and *Tokay* Wines. He is therefore exhibited, from the Authority of *Vopiſcus*, as amuſing himſelf, after his Victories, in cauſing his Soldiers to plant the Vine, whoſe Fruit we ſtill enjoy. And, in order to enliven the Deſign, we ſuppoſe that the People had immortalized their Gratitude, by erecting to the Honour of that Prince a Column, wound about with Vines, and crowned with a large ſhell filled with Grapes, with the following Inſcription; in which they celebrate him in the manner *Horace* had celebrated *Bacchus*, for diſpenſing Felicity in Conjunction with the Vine:

PROBO. IMPERATORI.
PATRI. PATRIAE.
LAETITIAE. DATORI.

Explanation of Plate 21. Vol. II. Page 241.

A, B. The Baſe of the Pedeſtal, and other Supporters.

C. The Cheeks, or Side Beams. Theſe are the upright Beams, whoſe lower Extremities are ſunk in the Earth, where they are ſtrongly riveted by croſs Beams charged with Maſonry. Theſe upright Beams are traverſed towards the Top by two ſtrong Beams, the lowermoſt of which is the Nut, or the Receptacle of the Screw.

D. The Screw with its Wheel.

E. The Bearer, or large Piece of Timber, on which the Wheels reſt, in order to ſink the Beams croſſing the Planks that cover the Grapes, F.

G. The Maye, or Planks, on which the Pile of Grapes F, are diſpoſed, in order to be ſqueezed. Theſe Planks are cut in Natches, to receive the Liquor, and to convey it in a Slope to the Veſſel appropriated to receive it. The Maye is ſupported by a maſſive Work of Maſonry, that it may reſiſt the Effort of the Preſſure; and this Maſonry is detached from every other Work, in ſuch a manner, that a Perſon may walk round it in order to viſit the Foundations and the Extremities of the upright Beams, as there may be occaſion; and to open a free Acceſs of Air upon all the Wood-work.

H. The Wheel which ſerves for forcing down the Screw and the Bearer upon the Grapes. When the Preſs is to be worked, the Grapes are laid upon the Maye in a ſquare Heap, over which three Poles are extended; one in the Middle, and one at each Extremity, in order to form a Baſis for the Planks that are to be laid upon it ſide by ſide. Upon theſe Planks, three, four, or five Beams are afterwards extended, proportionably to the Dimenſions of the Preſs. On this firſt Range of Beams is placed a ſecond; and on that a third; after which, a Turning-Wheel winds off the Cord from the other Wheel, by which means the Screw and the Bearer are preſſed down upon the Beams.

I. A leathern Pipe, for the Transfuſion of the Wine from one Piece to another. It terminates in two wooden Tubes, one of which is applied to the Bottom of the Veſſel, which is to be filled, and the other to the large Veſſel which is to be emptied.

K. A large Bellows; to agitate the Wine when it has ſettled into an even Surface in the two Pieces.

L. The ſame Bellows in Profile.

M. A large Fountain, which affords a quick Flow.

N. A Bung or Stopple, to cloſe the Top of the Veſſel newly filled; that the external Air may prevent the Efflux of the Wine upon the withdrawing of the Wooden Tube.

THE PLAN OF THE SECOND PART.

As we were deſirous to exerciſe the Minds of young Perſons with amuſing Subjects, and to engage their Attention to the Wonders of *Providence*, by the Mediation of pleaſing Ideas; we endeavoured, in the firſt Volume of this Work, to preſent to their View, the Generality of theſe Animals, with which *that Providence* has repleniſhed the various Parts of Nature, for the Benefit of Mankind. We then proceeded to ſome Obſervations on Plants, which open to us another Source of Advantage and Delight: But we limited our Enquiries to the general Structure, and only offered a ſlight Sketch of thoſe Claſſes which are moſt eſteemed; as not thinking it proper, at that Time, to be more extenſive on ſo vaſt a Subject. Leaving, therefore, to the Learned, the Care of propagating their Science, by an exact Arrangement of its ſeveral Branches, and by ſuch Diſquiſitions as comprehend the whole Syſtem of Nature; we imagined it would be more advantageous to our young Readers, whoſe Improvement was our principal View, not to perplex them with abſtruſe Enquiries, but to ſelect, from the beſt Books of Natural Hiſtory, ſuch Particulars as were proper to excite their Curioſity.

In Conjunction with this Method, which is always ſucceſsful, we intend to have Recourſe to another, in this ſecond Part; which is to engage our youthful Readers, by the Impreſſions of Gratitude. This Expedient will touch them, as effectually as the firſt; and it has this additional Advantage, that as it equally contributes to the Improvement of Reaſon, ſo it tends more directly to form the Heart, and cauſe the firſt Sentiments of Virtue to ſpring up in the Soul.

All our Readers are naturally deſirous of Affluence and Diſtinction, Power and Happineſs. This Work will unfold to their View a Profuſion of Riches and Liberalities, which cover the Surface of the Earth, and are diffuſed through its Bowels for their Service; and it will make them ſenſible of the noble Sovereignty they exerciſe over thoſe Bleſſings, in Conjunction with the reſt of Mankind. But before we preſent them with a Survey of all theſe Benefits, it will be neceſſary to deſtroy a falſe Idea we generally entertain of our preſent State, while we are inſenſible of the Dignity and Advantages which attend it.

We are apt to be extremely jealous and proud of that ſcanty portion of Riches, in which we are capable of ſecuring the ſole Property; and, at the ſame time, form low and faint Conceptions of thoſe we enjoy, in Participation with the reſt of Mankind. We imagine we poſſeſs nothing, but what we have acquired in this little Corner of the World, to which we are attached; and conſider all the Remainder of the Univerſe as loſt to us, becauſe we only ſhare it with the reſt of human Race. But it is not any one Tract of Earth that conſtitutes our Domain; the whole Extent of Nature may be conſidered as our Property. We receive but few of our neceſſary Accommodations from the particular Spot of our Inheritance; ſince all the Earth is obedient to furniſh us with our Supplies. We may, conſequently, be reputed the Monarchs of this Earth; and Society, inſtead of diveſting us of our Sovereign Power, is the very Circumſtance which ſecures us that Enjoyment.

In order to be convinced of this Truth, let us retire, a while, to ſome unfrequented Solitude, and diſcontinue all Commerce with Mankind: Let us there endeavour to poſſeſs our Patrimony by ourſelves, and exerciſe our Sway without any Competitor. When we are reduced to the Labours of our own Hands, and can no longer have Recourſe to the Advice and Aſſiſtance of others; in a word, when we ceaſe to be ſupplied with Carriages and Implements,

ments, we ſhall ſoon be deſtitute of all we need. The Earth will immediately ſhoot up Thorns and Brambles around us, and offer its Profuſion of Fruits and Flowers to other Hands. Roſes will be ſhed from Heaven, and Harveſt wave over the Glebe for others: For theſe will the Rivers roll their Streams, and the Winds diſpenſe their Gales: The Climes will vary their Productions, and all Nature be animated, for their Accommodation. When we once ſeclude ourſelves from Society, we loſe the Communication of all theſe Succours, and can never regain them, till we reſume our Intercourſe with Mankind.

For whom are Ports, and Marts, and publick Places opened? For whoſe Benefit are long and ſpacious Roads ſtruck out? And in whoſe Favour are the oppoſite Banks of Rivers united by Bridges? Whoſe Conveniency is conſulted when Barks and Carriages are in Motion, at regular Hours? For whoſe Uſe do large Veſſels divide the Waves, and for what People is the Produce of each Climate tranſmitted to all Parts? It is manifeſt, that we are all intereſted in theſe Particulars. The whole Earth is at our Service, and Community is ſo far from depriving us of our Property in theſe Enjoyments, that, on the contrary, it enables us to poſſeſs them, and ſecures us in the Exerciſe of our Prerogatives.

As an Inhabitant, therefore, of the Earth is likewiſe its Sovereign, it is but juſt, that he ſhould be acquainted with the outward and inward Parts of his Reſidence: He ought to take a Progreſs through his Empire, and acquire a competent Knowledge of every Object which is ſubordinate to his Power and Authority.

In order to take a View of all our Treaſure, without Fatigue or Confuſion, we ſhall purſue the eaſy and agreeable Order in which they are ranged by Nature, and make our Viſits, in Succeſſion, to thoſe Places where they have been diſpoſed. We will begin then with thoſe Productions that the Earth affords us, in our own Habitations; namely the Flowers and Verdure of our Gardens. It may be thought ſurpriſing, that we ſhould open the Scene with Particulars that are generally conſidered as mere Amuſements; but then, they are ſuch Objects, as Nature firſt preſents to our

View. Our Diſplays of her Works are not attended with any Arrangement of our own; all Things are already adjuſted, and we are only to follow the eſtabliſhed Order. When we have ſurveyed our Paſtures and Groves, the next Proſpects that occur will be our Kitchen and Fruit Gardens. But to prevent our being embarraſſed with the Variety of our own *Riches*, we ſhall only ſelect thoſe that are excellent and neceſſary. We ſhall not ſearch for every Plant an Olitory may be capable of producing; but by a prudent Retrenchment of all ſuch as are indifferent and ſuperfluous, we ſhall cauſe it to diffuſe its Gifts through all the Seaſons, without any Intermiſſion. When we have conſidered theſe, we ſhall viſit our arable Lands, and, from thence, proceed to our Vineyards, with an Intention to examine the Productions of thoſe two important Soils. We ſhall likewiſe be attentive to the particular Induſtry, by which they are manured, ſince we are as much intereſted in this, as we are in the Produce of the Land.

The Survey of our Woods will preſent us with another Train of Benefits, and we ſhall find our Meadows pregnant with new Bleſſings. The Banks of Rivers will diverſify our Riches, and we ſhall even trace them on the dry Summit of the Mountains. Nature affords more in one Place, and leſs in another; but ſhe diſpenſes her Gifts in every Part, and the wild Heath, itſelf, is not exempted from her Liberality.

Vol. III. When we have entertained our View with the Number of ſalutary Plants, which cover the Earth; we ſhall proceed to conſider the Springs and Rivers that lave it with their Streams. We ſhall be careful to purſue the Flow of thoſe Waters, which are commiſſioned to glide by our Habitations; to impart Fertility to our Plains; to ſlake the Thirſt of Animals; to give Vegetation and Growth to Plants; to accommodate our Tables with Fiſh of an excellent Juice, and connect the different Regions of the World, by mutual Tranſportations. We ſhall, afterwards, endeavour to diſcloſe the Sources from whence they derive their Progreſs; and when we penetrate the Entrails of Mountains and Plains, we ſhall diſcover the amazing Structure of thoſe Reſervoirs, whoſe Cavities are repleniſhed with Waters, we ſhall obſerve the Function of thoſe Mountains which collect them, and the wiſe Formation of the Channels which diſtribute them through various Lands; and ſhall be ſenſible of the Uſe and Productions of that immenſe Baſon into which they flow. We ſhall then attempt an Eſſay on the Operation of the Air, which perpetually raiſes them from their Level; and ſhall conſider that active Force which impels them to ſuch Height, as enables them to water the Mountains themſelves, and diffuſes them, by a Diſtillation which is always new, in ſuch Quantities as ſupply the Beds of Rivers, and perpetuate the Verdure of the Earth.

When we have examined thoſe Objects which are moſt uſeful on the Surface of the Globe, we ſhall viſit its Regions within. There, as in a vaſt Magazine, we ſhall find, reſerved for our Uſe, a Variety of oily Juices, and treaſured Salts, which are fertile in a Thouſand Effects; together with innumerable Veins of Earth, whoſe Uſes are multiplied, in proportion to their Qualities. We will then deſcend into Quarries and Mines, where we ſhall ſtill continue to obſerve the Conformity eſtabliſhed by the great Creator, between his Gifts and our Neceſſities. We ſhall firſt conſider Stones and Metals, in their natural Form, after which we intend to enumerate the chief Advantages we are able to derive from them.

Theſe are the Treaſures we enjoy: But our View of their Variety would be entirely frivolous, were mere Curioſity or Oſtentation our only Motives. That View ought to be ennobled by a very different Purpoſe. All theſe Riches are not imparted to us without a Deſign; and the leaſt we can do, when we receive them, is to acknowledge the Intention of our Benefactor.

Though Language be the chief Medium, by which Mankind converſe with each other, yet their Thoughts are capable of Communication, by a Number of other Signs; and no Language is more intelligible, than that which flows from Preſents. When delicious Wines or ſhining Silks are tranſmitted to us by an abſent Friend, we are ſenſible of his Meaning without the Aid of a Letter, or Meſſenger; and the more amiable his Preſent appears, the greater is our Satisfaction, at the honourable Rank he allows us in his Heart. We likewiſe have each of us a Friend, who is equally propitious and powerful, and that Friend is the Author of

Nature. He ſeems, indeed, to be abſent from us, but we are the conſtant Objects of his Care, ſince he ſheds his Gifts around us, without Intermiſſion. He is, every Moment, converſing with us by Liberalities that are never to be exhauſted. They are diffuſed over the Face of the Earth, for our ſakes: for if we were not the Inhabitants, all theſe Riches would be without Poſſeſſors, and without Admirers. He likewiſe maintains with us a conſtant Intercourſe of active and tender Friendſhip; and as this Language is equally clear and affecting, we might juſtly be taxed with Stupidity, were we not to underſtand and anſwer it. The Letter, which concludes the third Volume of this Work *, and is intitled *Uſeful Reflections on the whole*: repreſents the End and Intention of all thoſe preſents which the Deity offers to Man. We have there explained the ſecret Engagements that are contracted by thoſe who receive them; and, if I may uſe the Expreſſion, we have exhibited the firſt Elements of the Language, in which God converſes with us, and in which we ought to anſwer Him.

Our Readers, therefore. muſt not here expect thoſe Sentiments, that they may be called the Eloquence of Piety, and the Effuſions of Gratitude. We are more ſolicitous to make young Perſons ſenſible of the Benefits they have received, than to teach them how to render their Acknowledgments. We ſhall gain a conſiderable Point, if we are able to convince them of thoſe tender Regards the Deity has diſcovered for their Welfare; and if we can be ſo happy, as to affect them with the firſt Motives to a juſt Return, they will learn the reſt from the Heart, which is always the moſt noble and inſtrumentive Maſter.

The Neceſſity of knowing the moſt common Things.

Our main Intention was to render the Knowledge of the Voice and Will of God, in all the Objects which are daily preſented to our View, habitual to Youth; after which we had nothing more at heart, than to make them acquainted with thoſe Particulars, that are moſt obvious and familiar in human Life. It is a Happineſs to be converſant with ſuch Maſters as can inſtruct us in thoſe Subjects that are ſublime as well as intricate and uncommon. But we daily complain of our Unacquaintance with thoſe that are moſt uſeful, and even the Learned may poſſibly have the greateſt Reaſon to reproach themſelves in this Particular.

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* This Letter will ſufficiently acquit us of our Promiſe, to thoſe who purchaſed the firſt Edition of the firſt Volume, to clear up ſome Paſſages which needed ſuch an Explication. The Plate, inſerted at Page 382 of the third Volume, contains thoſe Particulars, that will give a ſatiſfactory Idea of the Proceſs of Vegetation.

'Tis certainly prudent to prevent young Perſons from being confuſed in their Studies, by too great a Variety of Objects. When their Education in the Schools is completed, they reſign themſelves entirely, either to ſome Science of their own Choice, or to the Duties of the ſtate of Life they embrace; and too frequently to their Pleaſures. And thus they advance through the ſeveral Stages of Life, without knowing the generality of thoſe Things which contribute to its Support. Theſe Things are likewiſe diſperſed, and they ſeldom ſearch for them, where they are likely to be found; or obſerve them, when they occur to their View. Such a Perſon, for inſtance, who knows the Elms that grow in his own Avenues, or remembers to have ſeen the Maple and the Oak in his Woods, will have no Idea, either of the Pine, or the Cheſnut Tree Another, who has frequently obſerved the common Trefoil in the Meadows, may poſſibly be a Stranger to the Saint-Foin, or the Snail-Trefoil. A third has viewed the Outſide of a Ship, but is ignorant of the Arrangement of its interior Parts. This Man, who has ſeen the Veſſels of *Havre-de-Grace*, or *Dieppe*, has no Conception how the Galleys of the *Mediterranean* are built. It may therefore be very uſeful to Readers, to have the greateſt part of thoſe Things that are common, and the Subject of daily Diſcourſe, preſented to them in a portable Volume, and render'd viſible by the Aid of the Engraver.

'Tis with this Intention that we have cauſed Plates to be engraved from ſeveral Deſigns, the greateſt part of which were taken from Nature; by which Means, we have repreſented the moſt amiable Flowers that are cultivated by the Curious in preference to others; together with the various Diſpoſitions of our Parterres and Groves, and the moſt irregular Plots of Ground. We have likewiſe exhibited the different Foliage of Ever-Greens, and other Trees which compoſe our Paliſades, and Alleys; and have alſo delineated the Leaves of thoſe Trees that are uſed by Joiners, Carpenters, and ſome other Workmen; as well as thoſe that accommodate us with Fuel; all which we cut down in our Foreſts. To theſe we have added Draughts of thoſe Preſſes which furniſh us with the Juices of Grapes, Apples, and Olives; and have not omitted the moſt uſeful Herbs in our Meadows. Theſe Objects, that are all ſo common, and yet but little known, are ſucceeded by thoſe which relate to Rivers, the Ocean, and the anterior Parts of the Earth. We firſt repreſent the different Strata, which are extended over one another, in the Heart of Mountains, and under the Surface of Plains; together with the Courſe this Diſpoſition gives to the Subterranean Waters, as well as to thoſe that flow on the Superficies of the Earth. We then introduce the Fiſhes that live in freſh Streams, and thoſe that retire, from the Sea, into Rivers: The principal Fiſheries have, likewiſe, their Place in this Collection. When we have aſſembled the greateſt Curioſities of the Sea, ſuch as Fiſhes that differ from the common Form, the fineſt Species of Shells; the principal Plants that grow in the mighty Waters, and the Fiſhery of Coral; we proceed to the Advantages of Navigation, but fancied we ſhould be defective in one Particular, which is but little known, though very familiar in Converſation, if we had neglected to exhibit the exterior Form, and the inward Arrangement of a large Ship, as likewiſe a Galley, and the ſmalleſt Veſſels; together with the manner in which they are launched.

Jewels, Stones, and Metals, being incapable of deriving any Aid from the Engraver; as any one may experience, by caſting an Eye on the pompous and inſignificant Plates, in the third Volume of the Hiſtory of the *Danube*, by the Count *de Marſilli*; we omitted a Number of Singularities, that are to be found in the Entrails of the Earth, and only cauſed ſeveral petrified Bodies, and figured Stones to be engraven; becauſe, as they imitate the Shapes of Animals, or Plants, they are eaſily known, and likewiſe create ſeveral curious Enquiries.

To render the Knowledge of theſe Particulars eaſy and agreeable, we were careful, as much as poſſible, to have Recourſe to thoſe Figures that correſpond with the natural Dimenſions of the Things they repreſented, and are always more proper to fix an Idea of the Object, than any written

ten Deſcriptions that can be invented. Give a young Reader a Relation of Leaves that are cockled, fleſhy, oblong, ſinuous, or laciniated; theſe learned Terms will confound him, and change his Amuſement into a laborious Study. But if you ſhew him the Leaf of a Plant, he immediately comprehends the Difference between a common Elm, and a Yoke Elm; a Linden Tree, and a Birch; and will conſequently remember them without any Difficulty. He will ſay, as he paſſes through a Wood, or Meadow, this Plant is called Saint-Foin, and that Tree is an Aſpin; here grows an Oak, and there a Fir-Tree.

All theſe Families are diſtinguiſhed, by their various Liveries, and thoſe Perſons who make them the Subject of their daily Diſquiſitions, think it ſufficient to mark them out, by the Figure of their Leaves and Seeds. We may therefore be ſatisfied with this Method of Diſcovery; and, indeed, we were induſtrious to avoid an elaborate Aſſortment of each Plant, in that certain Claſs, or particular Genus or Species, into which Monſieur *Tournefort* has ranged them. Our Readers would have been ſhocked, at thoſe Diſtributions of ſimple and compound Flowers; of ſterile and fertile Simples; of compound Monopetales, and compound Polypetales; of Monopetales which are either regular, or opened in the Form of Bells, Tunnels, or Roſes, *&c.* Theſe Diviſions and Subdiviſions, with a Variety of others, may be neceſſary to form a Herbaliſt, or furniſh a Dictionary for a Botaniſt; but as they would have been exceedingly miſplaced in this Work, the Cenſures we may ſuſtain by omitting them will be altogether as ill-diſpoſed.

As moſt of the Articles of this ſecond Volume, and Part of the third, relate to the Practical Part, more than to mere Curioſity, I was unwilling to commit any Miſtakes, that might be injurious to my Readers; for which Reaſon, I had Recourſe to Monſieur *Le Normand*, Director of the Herb Garden of *Verſailles*, and to Monſieur *Barnard de Jeſſieu*, Lecturer of the Royal Gardens; and I received from the polite Civilities, and profound Knowledge of thoſe Gentlemen, all the Aſſiſtance I needed on that Occaſion. They were ſo obliging as to review all the Converſations on Plants, and enabled me to give them their proper Appellations. This Remark was neceſſary for two Reaſons: My Readers will find their Account in it, and I have an Opportunity of teſtifying my ſincere Gratitude with Pleaſure.

APPROBATION.

I *Have read, by the Order of the Lord Chancellor, the ſecond Part of* Nature Diſplay'd, *and am perſuaded, it will prove as agreeable to the Publick as the firſt.*

Paris, 15 December, 1734. Joſeph Privat de Molieres.

NATURE DISPLAY'D.

THE SECOND PART.

FLOWERS.

DIALOGUE I.

The COUNTESS. *The* PRIOR. *The* CHEVALIER.

Cheval. I HAVE loſt nothing, by deferring my Return to the Month of *May* inſtead of *December.* All the Landſkip around me is extremely charming.

Counteſs. Thanks to the returning Spring, and the new Bloom of Flowers.

Cheval. Thoſe that border the Parterre form a moſt delightful Proſpect, but as yet I have only beheld them from the Balcony.

Counteſs. We may eaſily deſcend, and take a nearer View: But I muſt intreat the Prior to inform me, why the firſt Appearance of a Flower-Garden inſpires each Beholder with a ſudden Pleaſure, and whence it can proceed, that without any diſtinct Thought we are, that Moment, ſenſible of a Satisfaction, we experience in no other Place?

The Cauſe, in my Opinion, is to be derived from the rich Colours which ſtrike our Sight, and it is not without Deſign, that Flowers have been arrayed with ſo much Splendor.

Prior. I would willingly know the Chevalier's Sentiments on this Subject.

Cheval. I freely confeſs it never enter'd into my Thoughts to ſeek for any Deſign in Flowers; but if I may judge of them, by the Delight they afford me, they were certainly created to pleaſe us.

Counteſs. That ſeems to be a flattering Thought: But is it nothing more? And muſt we really take it for an Illuſion of Self-Love.

Prior. I am far from entertaining that Opinion: There is a manifeſt Connexion in all Nature; and tho' each Object has its particular End, in that Syſtem, or may happen to correſpond with ſome other, we ſee that all of them have an ultimate Relation to Man. They are united in him, as their proper Center; he is the End of all, ſince he alone has a Uſe for the whole. For him the Sun riſes each Morning, and for his Accommodation the Stars glitter in the Firmament: And if the moſt diſtant Bodies ſerve him with ſo much Regularity, he has the more Reaſon to conclude, that thoſe which are placed ſo near him are all appointed for his Uſe.

Counteſs It is evident that the Flowers, in particular, are formed to pleaſe him, and it is for his Sake that they have received their amiable Appearance. No Eyes, but his can enjoy their Beauties. The Animals never ſeem to be affected with Pleaſure, when they behold them, nor do they ever ſtop, to conſider them with Attention. They confound them with the common Herbage of the Field; they trample on the moſt beautiful of the Tribe, and are perfectly inſenſible of this Ornament of the Earth. Whereas Man, amidſt a Crowd of Objects and Riches that ſurround him, diſtinguiſhes and purſues the Flowers, with a peculiar Complaiſance

Prior. They have likewiſe an agreeable Correſpondence with our Eyes, and a Set of powerful Attractions, that invite us to approach them. Whenever we gather them they preſent us with new Perfections, in proportion to our regarding them with a nearer Attention. The greateſt Part of them not only regale our View with the Beauty and Arrangement of their Colours, but gently delight our Smell with an exquiſite Perfume; and when they have gratified our Senſes with an innocent Satisfaction, the Mind ſtill diſcloſes Wonders in them, which raviſh its Faculties.

The firſt End of Flowers.

If I am inclinable to trace this Flower thro' all its Progreſs, from its Birth, I perceive it always appears in the Place where the Seeds are to be unfolded; and wherever that is wanting, theſe are not to be expected. The Trees that grow in Foreſts, and thoſe that bear Fruits, the different Kinds of Pulſe, together with the Herbage of the Field, are yearly cover'd with Flowers, more or leſs lively in their glow, in order to produce a Fruit, or Seed, which is generally formed, unleſs the Flower itſelf was in no Condition to blow, or has not been ſufficiently preſerved. I am deſirous to diſcover the Relation between a Flower and a Seed, and when I have carefully ſurvey'd the Structure of the former, I always diſcover one or more Encloſures appointed for the Reception of the Seed. Around that Encloſure I obſerve a Set of Chives ſuſtaining ſeveral Packets of Powder, which they ſcatter on all Parts. The whole is encompaſſed with an Empalement, or ſoft Robe, that unfolds and cloſes, with a kind of precaution, according to the Diſpoſition of the Air. All theſe Relations have a Language I underſtand, and they contribute to my Inſtruction; till, at laſt, I am convinced that theſe Parts, which are diſpoſed with ſo much Art and Regularity, and wither round the Encloſure, when the Seed is formed, are inſtrumental in the Generation of that Seed. I likewiſe diſcover the original Deſign of Flowers. The Deity, by diſpenſing the Verdure of the Earth to Mankind, has perpetuated his Gifts, thro' all Ages, in conſequence of the Commiſſion he has given the Flowers, to renew each Plant from Year to Year, by infuſing Fertility into the Seed.

Cheval. This is a Function truly noble; but if they are found to impregnate the Seed, can we continue to ſay they were created for our Pleaſure?

The ſecond Uſe of Flowers.

Prior. This important and firſt Deſign, to procure Immortality to Plants, is not inconſiſtent with a ſecond, which is to delight the View of Man. When God created the Flowers, he thought fit to blend Utility with Pleaſure. If he had only appointed them, to furniſh each Plant with a re-productive Seed, he would not have graced the Generality of them with ſuch amiable Forms and engaging Colours; but they would have reſembled Roots, which being only calculated to impart Nouriſhment to the Plant in a Situation of Obſcurity,

curity, were not provided with any Embelliſhment. Whereas the great Being, who form'd the Flowers, ſeems to have taken Pleaſure to ſhape and paint the greateſt part of them, in ſuch a Manner, as qualifies them to regale the View of Man and adorn his Habitation.

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Counteſs. We have no occaſion, at preſent, to expatiate on that ſurpriſing Structure of Flowers, which produces ſuch uſeful Effects, ſince we have ſufficiently enlarged upon it formerly: Let us therefore be more particular in conſidering the Pleaſures they are commiſſioned to procure us.

In the firſt place there are a Number of Flowers that ſeem only form'd to preſent Mankind with a Collection of Sweets; and while others are preparing for him a Fruit, which he will uſe after the Diſappearance of the Flowers, theſe are far from being indifferent, tho' he is not conſcious they have any other Merit than the Pleaſure they afford him; but they preſent themſelves to him, in their Turns, with ſuch an engaging Air, as makes it evident they all pay their Court to him as their Lord.

The vaſt Number of Flowers.

Prior. It is difficult to conceive how far the Deſign to delight Man with the Beauty and Profuſion of Flowers has been extended. Their Multitude is a real Prodigy, and one would imagine they had been commanded to ſpring beneath every Step we take. Each part of Nature unfolds them to our View, in their Turns. They rear their Heads on the lofty Tops of Trees, and are diffuſed thro' the Herbage that creeps along the Earth: They embelliſh the Valleys, and the Mountains, and the Meadows are enamelled with their Colours: They are gather'd from the Skirts of Woods, and make their Appearance even in Deſerts: The Earth is a Garden entirely covered with their Bloom; and leſt Man ſhould be deprived of this delicious Proſpect, when he retires within the narrow Confines of his Habitation, they ſeem deſirous to render this more amiable to him, by ranging themſelves in his Parterre, and creating him more Pleaſure than they afford him in any other Situation.

Counteſs. Would not one be apt to ſay, that, at leaſt, the moſt lovely of all the Tribe are ſeparated from the Commonalty of Flowers, in order to form a ſhining Embaſſy; and that they advance to render Homage to their Lord, and are deputed to hail him King of Nature?

The Beauty of Flowers.

Prior. 'Tis an infallible Truth, that the Beauty of Flowers never fails to inſpire us with Joy; and when we have ſufficiently examined the faireſt, we are ſenſible they are only proper to refreſh the Sight; and indeed, the Proſpect they afford is ſo touching, and we experience their Power to be ſo effectual, that the generality of thoſe Arts which are ambitious to pleaſe, ſeem moſt ſucceſsful when they borrow their Aſſiſtance. Sculpture imitates them in its ſofteſt Ornaments, Architecture beſtows the Embelliſhments of Leaves and Feſtoons on thoſe Columns and Fronts, which would otherwiſe be too naked. The richeſt Embroideries are little more than Foliage and Flowers; the moſt magnificent Silks are almoſt cover'd with theſe charming Forms, and are thought beautiful, in proportion as they reſemble the lively Tinge of natural Flowers.

Theſe have always been the Symbols, or Repreſentations of Joy; they were formerly the inſeparable Ornaments of Feaſts, and are ſtill introduced with Applauſe, toward the cloſe of our Entertainments, when they are brought in with the Fruit, to enliven the Feſtival that begins to languiſh: And they are ſo peculiarly adapted to Scenes of Pleaſure, that they are always conſidered as inconſiſtent with Mourning. Decency, inform'd by Nature, never admits them into thoſe Places, where Tears and Affliction are predominant.

Counteſs. The Feſtivals in the Country are never celebrated without Garlands, and the Entertainments of the Polite are uſher'd in by a Flower. If the Winter denies them that Gratification, they have recourſe to Art. A young Bride, in all the Magnificence of her nuptial Array, would imagine ſhe wanted a neceſſary part of her Ornaments, if ſhe did not improve them with a Sprig of Flowers. A Queen, amidſt the greateſt Solemnities, tho' ſhe is cover'd with the Jewels of the Crown, has an Inclination to this rural Ornament; ſhe is not ſatisfied with mere Grandeur and Majeſty, but is deſirous of aſſuming an Air of Softneſs and Gaiety, by the Mediation of Flowers.

Prior. Religion itſelf, with all its Simplicity and Abſtraction, and amidſt the Abhorrence it profeſſes to theatrical Pomp, which rather tends to diſſipate the Heart, than to inſpire it with a due Reverence for ſacred Myſteries, and a

Senſibility of human Wants, permits ſome of its Feſtivals to be celebrated with Boughs, and Chaplets of Flowers.

Chevalier. All Perſons in general are touched with the Beauty of theſe Productions; and 'tis a Misfortune we ſhould ever be deprived of their View.

Counteſs. It is certain, that what has been ſaid of a different kind of Beauty, may be applied to each Flower in particular,

> *The faireſt Forms that Nature ſhows*
> *Suſtain the ſharpeſt Doom;*
> *Her Life was like the Morning Roſe,*
> *That withers in its Bloom.**

The Succeſſion of Flowers.

But as the Generality of Flowers are employed to adorn the Dwellings of Man, at leaſt for a certain Time, they never make their Appearance in one united Body, nor at the ſame Period of Time. They tender him their Service in Succeſſion; they agree to beautify the different Seaſons; they ſucceed each other, without leaving any vacant Spaces, and we ſeldom complain of their Abſence, ſince they divide among them the four Portions of the Year.

Prior. The Flowers, by this Succeſſion, entertain us with a ſplendid Feaſt, wrought into Decorations that ſucceed each other, in a regular Order.

The Variety of Flowers in each Seaſon.

The flow'ry Liverwort, Cowſlips, Violets, Hyacinths, Auricula's, Lilies of the Valley, Daffodils, and Wind-Flowers, preſent us, if I may uſe the Expreſſion, with the firſt Act.

Theſe diſappear, for the moſt Part, and reſign their Places to Imperial Crowns, Arabian Beans, Flower-de-Luces, Jonquils, the Ranunculus, and all the Flowers which, at preſent, crown this Parterre. The diſtant Fruit-Trees intermix their ſofteſt Colours with the riſing Verdure, and heighten the Glow of the Parterre.

You may at the ſame time, ſee the opening Bloom of the

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* . . . . Les plus belles choſes
Ont le pire deſtin;
Elle a vêcu ce que vivent les Roſes,
L'eſpace d'un Matin. *Malherbe.*

Roſe-Buſh, the Lily, the Julian, the Gilliflower, the Gold-Locks, the Mithridate Muſtard, the Carnation and Poppy: Their Stems and Buds are fortified by inſenſible Growth; and theſe are the Preparations for the Array of Summer.

Autumn will afterward unfold the Pyramidal, the Balſamine, the Turnſole, the Tuberoſe, the Amaranth, the Indian Pink, the Meadow Saffron, with a Variety of other Species. The Feſtival will be continued without Interruption: The predominant Colours are always aſſuming an Air of Novelty, and prevent, by their agreeable Variations, that Diſguſt which is inſeparable from Uniformity.

The Winter, attended with its Train of Froſts and lowring Skies, draws her ſable Curtain at laſt over the Face of Nature, and intercepts its Features to our View; but while it diſpoſes us to wiſh for the Return of verdant Scenes and Flowers, it affords ſome Repoſe to the Earth, which has been exhauſted by ſo many Productions.

Counteſs. We are ſo ſenſible of the Beauty of Flowers, that we have acquired the Art of ſecuring their Preſence, in ſpite of the Rigours of Winter. We preſerve the ſhatter'd Remains of Autumn, and can frequently raiſe a Bloom of Spring Flowers, without waiting for the Return of the Zephyrs, whoſe Approaches are always too ſlow. The Tuberoſe, the Amaranth, the Stork-Bill, and the whole Claſs of Flowers that are well regulated, may be much retarded in their Appearance, and preſerved till the Laurus-Tinus flouriſhes in our Apartments, that exclude the injurious Blaſts of the North. The Wind-Flower and the Violet, aided by a moderate Heat, and the Hyacinth and Daffodil placed in a warm Air, and daily refeſhed with Water, will adorn our Chimneys in the moſt gloomy Months. Thus do we connect the Autumn and Spring, and they ſeem to aſſociate with a pleaſing Harmony.

Prior. The Flowers are not only diverſified from one Seaſon to another, but even thoſe that bloom together in the ſame Period of Time have a beautiful Variety of Forms, which demonſtrate the endleſs Invention of their Author, together with his Deſign to multiply the Ornaments of our Habitations. 'Tis impoſſible to enumerate the different Plans, by which all the Families of Flowers have been formed, without repeating any perfect Similitude between them. Every Touch is truly original, and peculiar to a certain Species.

cies. They vary among themſelves, in the Shape of the Petals*; and the Delicacy of the Fringe that borders them; the Diſpoſition of the Chives that are connected with the Heart; the Structure of the Cup that unites the ſeveral Parts; the Formation of the Stem that ſuſtains them; the Turn of the green Foliage that ſurrounds them, and principally in the Colours, with which they are tinctured, and the Airs peculiar to their Claſs. Let us take a ſhort Survey of the Beauty that reſults from ſo many ſplendid Tints.

The Colours. I am not certain whether Flowers derive more advantage from being viewed in conjunction with each other, or from a ſeparate Conſideration of their Beauties. When they are united in a Cluſter, they form an Aſſortment that diffuſes an engaging Propriety thro' the Whole. Nothing appears indelicate, ill-diſpoſed, or too much contraſted. The Concourſe of all theſe Colours produces a Harmony, extremely varied, and which entirely ſatisfies the Eye. When they are conſidered in a ſeparate View, each Individual diſcovers its Perſonal Merit by a Symmetry peculiar to its Nature. Let us gather the firſt that accidentally comes to hand.

It is one of the laſt party-coloured Anemonies, and alone preſents me with all the Beauties I admire in the whole Parterre. I here obſerve a Variety of different Colours, which grow fainter by degrees, and by the ſofteſt Diminutions loſe themſelves in the Luſtre of the adjoining Tints. The Tulip, on the contrary, limits its Colours by a delicate Stripe, which is elegantly diſtinguiſhed, and by contraſting one Colour with another heightens the radiant Complexion of both.

The Form of Flowers. If the Divine Wiſdom ſeems to have had Complacency in the Diſtribution of thoſe Colours that array the Flowers, what a new Charm has it imparted to them in their particular Airs and Forms! Take a general View of the Flowers that fill the Diviſions of this Parterre; you may obſerve ſome of them riſing with a Mien of Dignity and Grandeur; others, without the leaſt Pomp or Oſtentation attract the Eye by the Regularity of their Lineaments. What an Aſpect of Majeſty is viſible in the Growth of

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* The Leaves that compoſe the Vaſe of the Flower.

Tulips! How elegant is the Symmetry of thoſe Pyramids, in which the Lilies will ſoon appear! At the Foot of theſe ſtately Flowers I diſcern a Panſy, which diſcloſes nothing remarkable: One would imagine it wanted Reſolution to make its Appearance. It promiſes but little at a diſtance; but the Moment we approach it, we find ourſelves delighted with a refreſhing Fragrance, and a Profuſion of peculiar Graces.

Counteſs. You have given me a ſenſible Pleaſure by raiſing it from its Obſcurity: 'Tis, indeed, my favourite Flower, becauſe it not only affords us its Preſence in all Seaſons, and ſupplies the Abſence of other Flowers that have diſappeared, but is likewiſe graced with a Fineneſs of Texture, and a Glow of Purple which nothing can imitate; the ſofteſt Velvets, when compared with this little Flower, appear like Canvas to the Eye.

Cheval. It is certain, that the Works of our Looms have neither the Delicacy, nor the Luſtre of Flowers; but then they have one Advantage of which theſe are deſtitute. They may be changed and diverſified by new Inventions; whereas Flowers are always the ſame. How pleaſing are the Charms of Variety!

The Uniformity of Flowers.

Counteſs. 'Tis a Pleaſure we are very ſollicitous to procure in all our Works. We conſult it in our Habit and Furniture, our Muſic, Language and Building. All our Inventions are in a conſtant Fluctuation, and we are never fixed in any one particular. One Mode is baniſhed by another, and we are not certain that the beſt of our Performances will be thought agreeable, either for the ſpace of a hundred Years, or at the diſtance of a hundred Leagues. We vary the ſame Things into a thouſand Shapes, but after we have reformed them with our utmoſt Care, we find ourſelves as uncertain, and as little advanced in our Progreſs as we were the firſt Day. But the Caſe is very different in the Equipage of Flowers: The Subſtance, the Colour, the Shape, are always the ſame, if we except a few Tinctures, whoſe Variations are very inconſiderable, and always pleaſing. We are never tempted to alter them by any Additions, or Diminutions: We ſhould be deprived of all their Beauty by that proceeding, and their Model is ſo amiable already, that we are perſuaded it needs no Reformation. The Roſes have never changed from the beginning of the World, and they have conſtantly created Pleaſure to this Moment.

Prior. Theſe are Beauties which, without any Preparations, or ſedulous Attention, have attained their Perfection, in all the Simplicity of Structure, and are fixed by the Standard of Truth.

Counteſs. This may be the very Circumſtance, that occaſions the real Difference between the Beauty ſo inſeparable from the Works of Nature, and that which is changeable and tranſient in the Productions of Man.

The Source of Beauty.

Prior. We muſt not be ſurpriſed, if Men are limited, unſertile and fickle in their Inventions. They proceed with uncertain Steps, when they would trace out what is amiable. That Matter which they ſhape into innumerable Forms, in order to accommodate themſelves with Houſes, Furniture, and Habits, is not their own Work. They are even unacquainted with its conſtituent Parts; it often fruſtrates their Labours, and is frequently deſtroyed, or rather diſconcerted under their Hands. They endeavour to re-adjuſt it in a more promiſing Form; but when they have accompliſhed it to the beſt of their Capacity, it is attended with freſh Inconveniencies, and creates them new Diſſatisfactions.

The contrary of all this is viſible in the Works of God, and every Part of his Creation has a determined and perſevering Beauty. His Will regulates all that is amiable. The Object which he has once created never varies, and is always pleaſing. He makes it evident, that he is the Maſter of Nature, and that he renders it tractable to his Laws. This Matter, which conforms to his Orders with ſo much Pliancy and Obedience, aſſumes all the Shapes with which he pleaſes to impreſs it, and is immediately productive of each Effect that he ordained. He imprints upon it the moſt apparent and oppoſite Characters, according to his Sovereign Pleaſure. He moulds the Face of a Lion, a Tiger, and a Leopard, into an Aſſemblage of dreadful Features and Lineaments, that fill the moſt undaunted Hearts with Terror. But when his unerring Hand faſhions the ſame Matter into Flowers, to delight our View, he frames them in a different Manner. He gives them a ſoft and elegant Form, and arrays them with the moſt delicate Attractions, that inſpire us with Delight, the Moment we behold them. He confines the terrifying Forms of Nature to Woods and Deſarts remote from Man, but ſheds a Profuſion of Flowers and Verdure, over our Fields, our Meadows, our Gardens, and all the Proſpect around us. Man, therefore, beholds himſelf encompaſſed with Objects that are only offered to his View, with an Intention to ſolace himſelf in his Labours, by preſenting him with Pleaſures in every Part, that amuſe him without corrupting his Mind.

The Fragrancy of Flowers.

Counteſs. Flowers are not only intended to beautify the Earth with their ſhining Colours, but the greateſt Part of them, in order to render the Entertainment more exquiſite, diffuſe a Fragrance that perfumes all the Air around us; and it ſhould ſeem as if they were ſolicitous to reſerve their Odours for the Evening and Morn, when walking is moſt agreeable; but their Sweets are very faint during the Heat of the Day, when we viſit them the leaſt. Have the Flowers entered into any mutual Agreement to ſerve us with ſo much Complaiſance?

Prior. The Sap is perpetually tranſpiring through the Flowers in Proportion to the Sun's Warmth. Theſe fine Spirits, which are the Eſſence and aromatic Parts of the Flowers, are eaſily diſperſed through an Air rarified by Heat, and affect the Smell but faintly at that time; but their Diſſipation is much abated, when the Air is condenſed by the Return of Night. The Action of the Sun, by which they are diffuſed, is too weak in the Morning and Evening, to ſcatter them to any conſiderable Diſtance, and 'tis then that the Re-union of theſe Spirits affect us with the ſtrongeſt Impreſſions.

The Atmoſphere of Flowers.

The Evaporation of theſe minute Particles forms an Atmoſphere around the Flower, which is diſſipated or condenſed, as the Action of the Air or Sun is more or leſs intenſe.

Crane's Bill.

Counteſs. The Spirits which compoſe the Atmoſphere of Perfumes, as you call it, muſt be extremely ſubtile, and delicate, ſince the Day-Light alone is ſufficient to diſperſe them through the Pores of ſome particular Flowers. I cultivate one, for Inſtance, call'd the Crane's Bill, with a Tuberoſe Root, which never diſpenſes the leaſt Odour, while the Day continues, but is exquiſitely fragrant in the Night.

Prior. This is a Demonſtration that the Spirit of Flowers are diſperſed in Proportion to the Sun's Action upon them. But with your Permiſſion, *Chevalier*, we will not confine ourſelves to this Particular. In the Study of natural Things true Philoſophy is never limited to the Contemplation of their Mechaniſm, but extends its Curioſity to the Benefits they produce: We are eaſily ſenſible of the Intercourſe that appears between the Flowers, the Air, and the Sun-beams; and can we poſſibly be unacquainted with that Goodneſs which is ſo attentive to make this Correſpondence advantageous to Man? He is treated like a Sovereign in each Particular. Providence has not only enamelled his Way with Flowers, for the Entertainment of his View, but has taken Care to embalm and purify the Air he breathes, by ſhedding the nobleſt Perfumes in his Paſſage. One would even imagine that the Flowers acquitted themſelves of this Duty with a conſcious Punctuality, ſince they reſerve their moſt ſenſible and pleaſing Exhalations for thoſe Moments of the Evening, when they behold Man reſorting to their Beauties for his Recreation after his Labours.

Other Qualities of Flowers.

Counteſs. Their Services are not limited to the Sight, and Smell, and other Senſes may derive Advantages from their Miniſtration. They ſupply us with Paſtes to enrich our Deſerts, and preſent us with Powders to perfume our Wardrobes; they afford us delicate Syrups, and even Remedies to relieve us when we are indiſpoſed. Violets, Jonquils, and Peach-Bloſſoms, Roſes, Jeſſamines, Carnations, and eſpecially Orange Flowers, accommodate us with Conſerves, and a Variety of Confections; together with Eſſences and diſtilled Waters, that continue to us the Enjoyment of the Odours and other uſeful Qualities of Flowers, when they have long ceaſed to be in Seaſon.

Chevalier. I have always been fond of Flowers, but my Idea of their Merit was too mean and imperfect; I conſidered them as little Productions that were accidentally ſcattered over the Earth. But I am now ſenſible they make their Appearance to pleaſe me, and I regard them with Admiration and Gratitude.

Counteſs. Nothing can be more juſt than that thought; what Advantage could we derive from the Senſe of Sight, were it not accompanied with proper Sentiments?

Prior. The Flowers, my dear *Chevalier*, which tender us ſuch pleaſing Services, diſcloſe a Function ſtill more noble and beneficial, by perpetuating the Plants, and embelliſhing the Face of Nature.

Chevalier. What can they poſſibly do more?

Prior. They furniſh us with Inſtruction, and conduct us by gentle Steps to the Knowledge of the firſt Being, who has condeſcended to ſhape and paint them with ſo much Delicacy, and to grace them with ſuch a Variety of Beauties. How amiable muſt He then be, who is the Source of ſo many Charms in ſuch an Infinity of Objects, to which he conſtantly imparts the ſame Luſtre they diſcloſed, when they firſt appeared on the Earth? And if he has been pleaſed to beſtow ſo magnificent an Array on Creatures of ſuch a tranſient Duration, and who To-morrow will be withered and trodden under Foot, like the Herbage of the Field, what will he not do for us, who are the Objects of his Complacency? What Riches will he not ſhower upon us with Profuſion, when he ſhall fill the Deſires which he himſelf has created within us, and when his Omnipotence ſhall be employed to embelliſh the Souls of Men?

THE PARTERRE, OR, FLOWER-PLOT.

DIALOGUE II.

The COUNT. *The* CHEVALIER.

Chevalier. IF I ſhould have an Inclination to be a Floriſt, will your Lordſhip condeſcend to be my Inſtructor?

Count. You are to ſet out for *Italy* next Year; and to what purpoſe, then, ſhould I amuſe you with a Converſation on Flowers, when you are preparing to reap a Harveſt of Laurels?

Chevalier. But this Harveſt is not perpetual, and I can judge by your Lordſhip's Example, that the ſhade of Laurels and Flowers may be properly intermixed. We have a Number of vacant Hours in the Country, and no Attention can employ them better than the Cultivation of Flowers.

Count. Your Opinion is perfectly juſt, my dear *Chevalier*, and I ſhall eſteem it a Pleaſure to preſent you with your firſt Rudiments on this Subject.

The Advantages ariſing from the Culture of Flowers.

The Culture of Flowers is an Exerciſe that can never be too much commended, when it is uſed as a Recreation, after any Employments that are more neceſſary. It furniſhes our Houſes with delightful Ornaments, and ſupplies us with Accommodations that we may ſhare with others without any Detriment. And as the Taſte for Flowers, and the Pleaſure of diſcloſing them to the View of others, are almoſt inſeparable, we may conſider their Cultivation as an agreeable Band of Society. But they are equally charming in Solitude, and ſupply the Abſence of Company to thoſe who are alone.

Cheval. My Amuſement is highly dignified by theſe Particulars; but leſt your Lordſhip's Inſtructions ſhould eſcape my Memory, I intend to commit them all to Writing.

Count. That will be a very proper Proceeding. However, I ſhall not enter upon any little Particulars, but think it ſufficient to acquaint you with ſome of the firſt Principles; the reſt will grow familiar to you by Practice, in which every one is governed by his own Experience. Let us begin then with preparing the Plot for our Flowers.

Parterres.

As amiable as they are in themſelves, we heighten their Agreeableneſs in the Manner we improve Diamonds. When we intend to make theſe appear in their beſt Perfection, we join the Advantage of a fine Situation to their natural Beauties, and cauſe them to be elegantly ſet. Flowers never appear to more Advantage, than in the Borders and Compartments of a regular Parterre. But inſtead of explaining to you the Nature of a Parterre, I ſhall only acquaint you, the Border is a long Bed of Earth which is carried round the Parterre, and wherein you ſee ſuch a Variety of Flowers. The Compartments are little Plantations, or Incloſures of Box, formed into different Figures, of which ſome Parterres are compoſed.

When the Plot of Ground, which is to be appropriated to Flowers, happens to be very ſmall, inſtead of encompaſſing the Partitions which divide it, with a Verge of Box, or Turf, which would take up too much Room, we content ourſelves with a plain Border of Wood, painted green. The Propriety of this Expedient is always the ſame, and we are diſcharged for twenty Years from all Cares and Expences of Reparation.

If we happen to poſſeſs a ſpacious Tract of Ground, we chuſe that Part which is neareſt to the Body of the Houſe, and trace out a Parterre, either in Embroidery, or plain Turf. This Parterre will be very agreeable to the Eye; and may be ſo diſpoſed as to preſent a beautiful View to the Apartment, with Borders embelliſhed with common Flowers, provided the Intermixture be properly blended; and the Regularity of its Figure will ſuffice, as an Ornament to the whole Place, when the Seaſon for Flower is paſt.

Chevalier. I have known ſome Gentlemen extremely pleaſed with their Parterres, that repreſent their Arms, with their Supporters, in Box.

A Parterre of Embroidery.

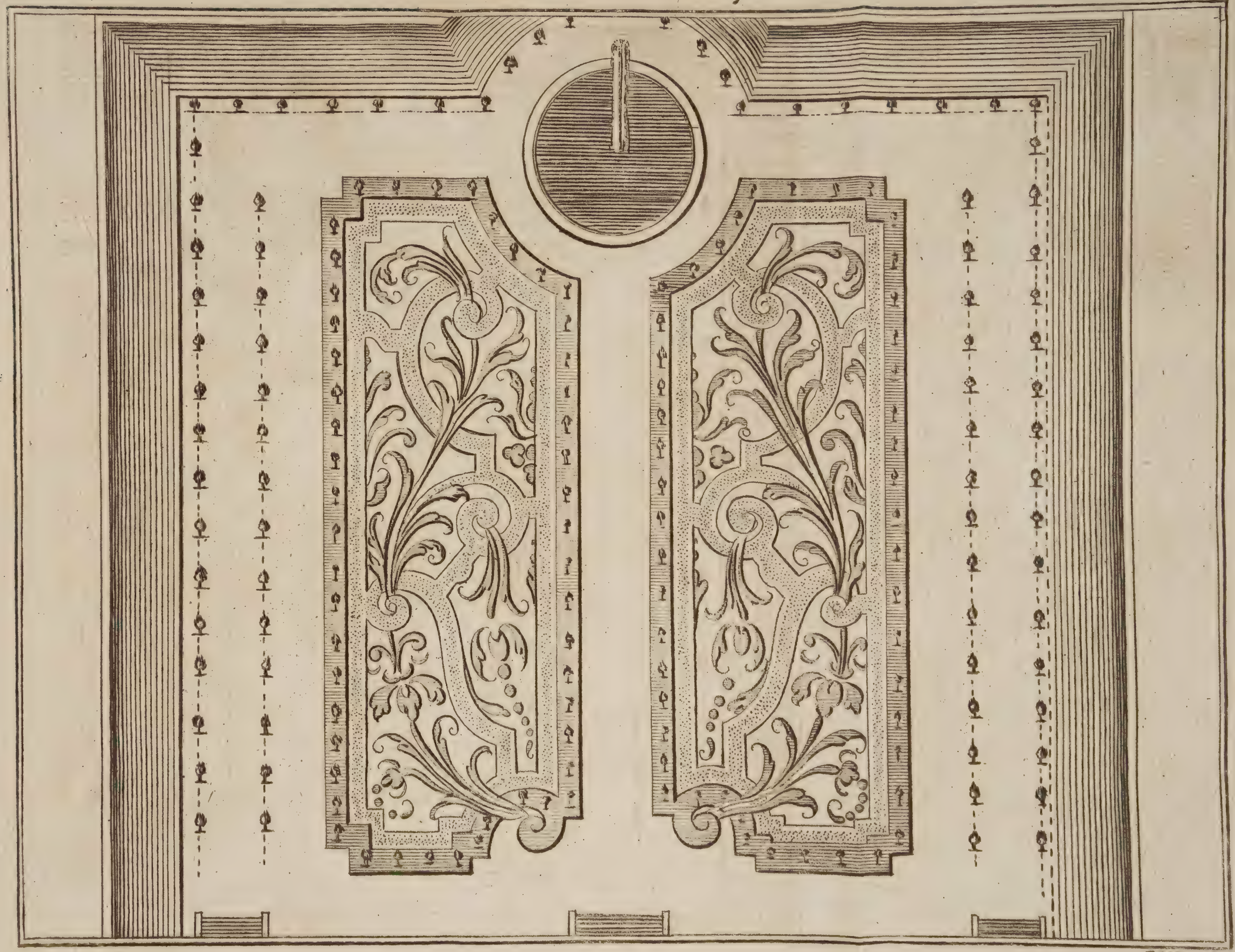
Count. All crouded Deſigns and Figures, that are too much compounded, have been long diſcontinue in Parterres; for they are ſo many Labyrinths, in which the Eye of the Spectato is loſt. We grew ſenſible, by Degrees that all real Beauty is inconſiſtent with Confuſion; and w think the *Gothic* Taſte is excluded from Parterres, as we as from other Works, by a Moderation in the Uſe of Ornaments.

The Extent of Ground intended to be laid out in a Pa terre, may be divided into ſeveral long Squares, or int various triangular Pieces, correſponding with each othe Some Lines of Box, uſually accompanied with a Scrol Turf, compoſe a Flouriſh, a Palm-Branch, or ſome oth ſimple Bough, that appears eaſy to the Eye, and ſhoo from one End of the Square to the other. If the Plot l very large, a Work of Turf may be drawn round tl whole Embroidery, and ſeparated from it by a Track, wi a Border to edge the Square. This neat Figure, which eaſily taken in at one View, and may be improved with covering of Sand of an amiable Colour, needs no Additio but the Flowers in the Border; and theſe few Objects w ſufficiently enrich a very large Plot. You may obſerve theſe Particulars in the Parterre before you.

Chevalier. That which has been lately finiſhed, under t Window of your Lordſhip's Cloſet, is entirely different its Form, and without any Embroidery.

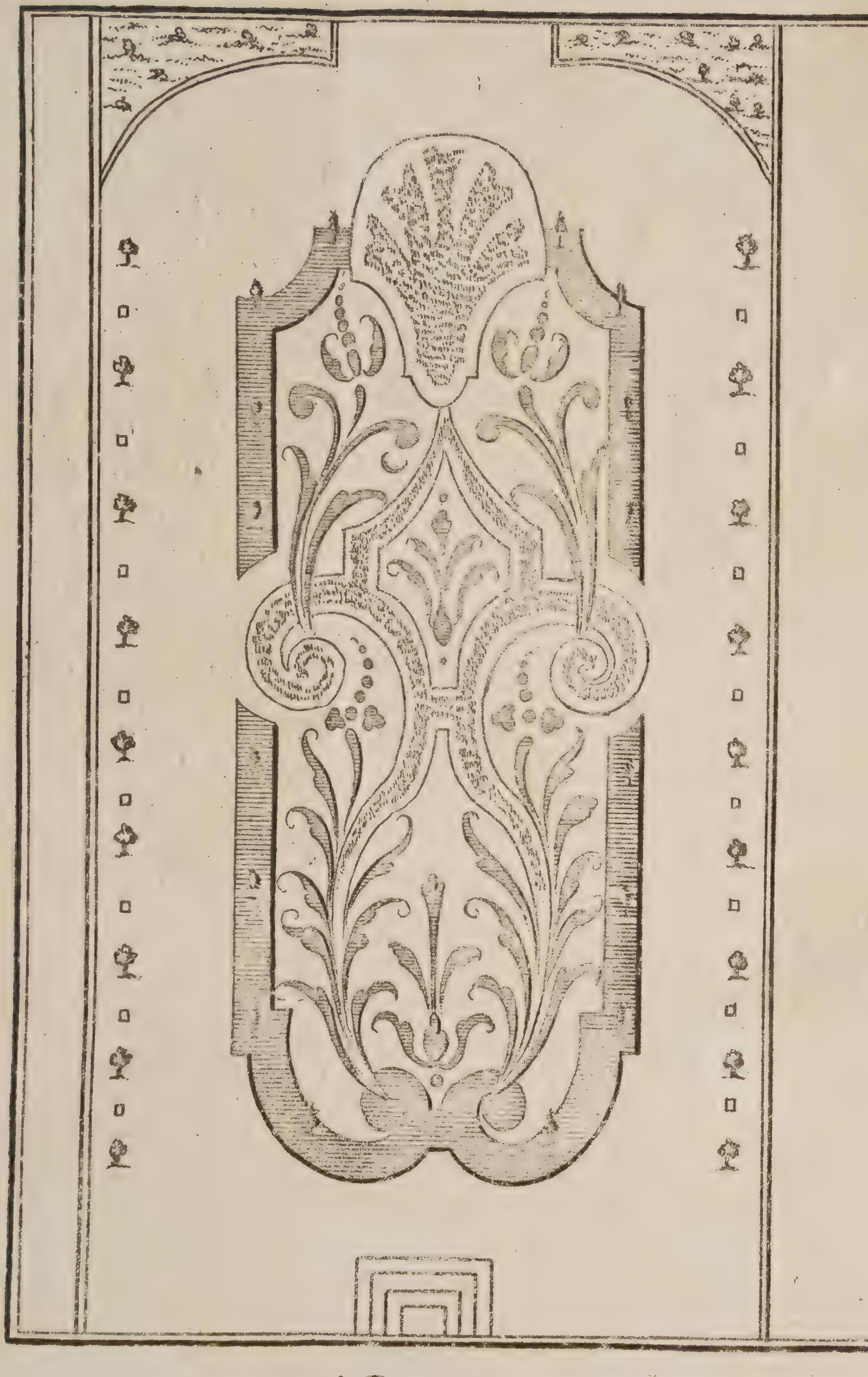
Cou

A Parterre of Embroidery.

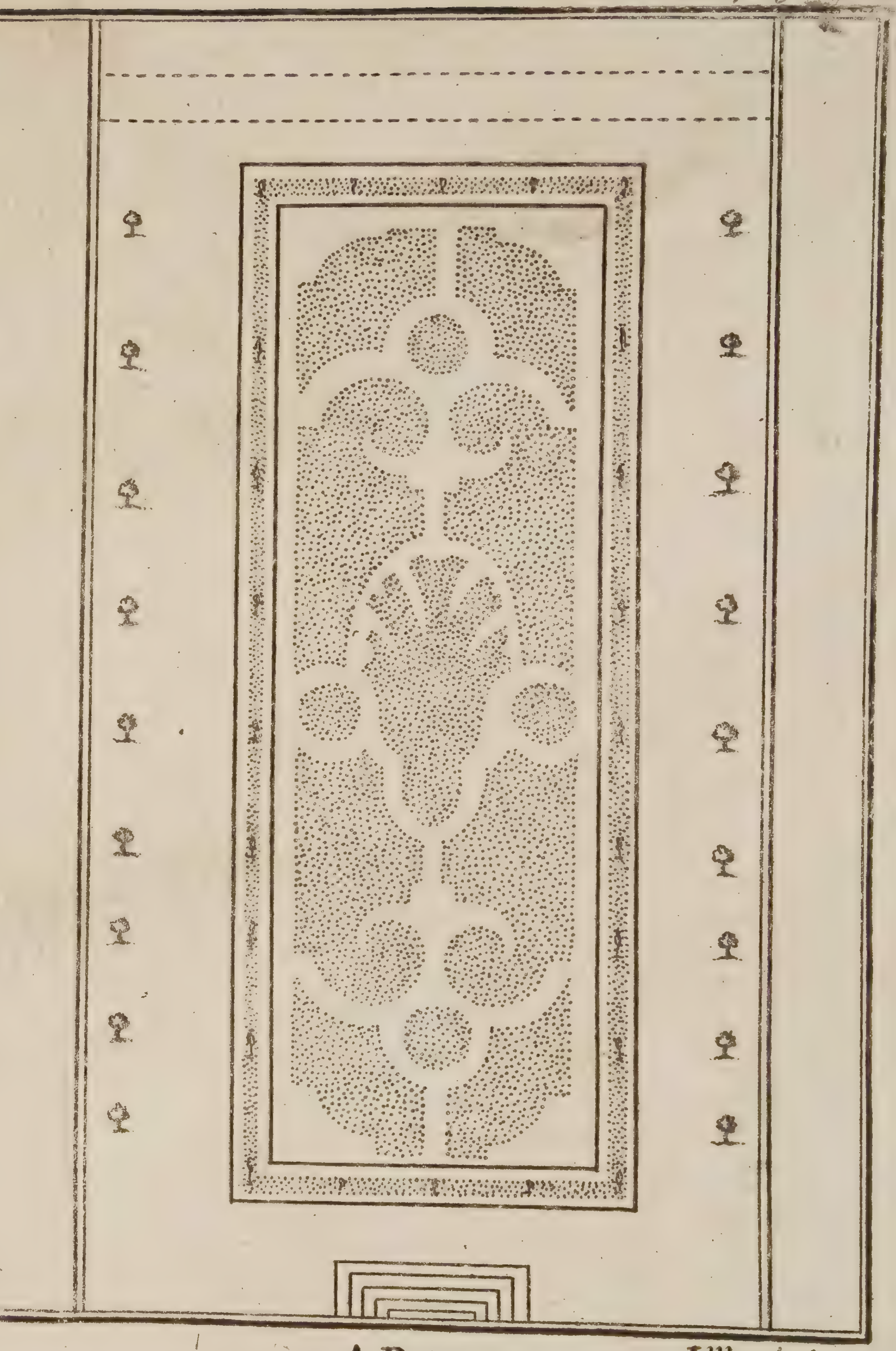


I. Mynde sc.

Plate 2 Vol. II page 27



A Parterre
intermix'd wth Embroidery & Turf



A Parterre
After the English manner
border'd with Verges of Turf

J Mynde Sc.

A Parterre of Turf.

Count. As noble and entertaining as the Simplicity of the firſt Method may appear, there are ſeveral Perſons of an excellent Taſte, and the *Engliſh* Nation in particular, who give the Preference to a Parterre of Turf; which is often entirely plain, and without any Figure, but the long Square, with a Baſon in the Centre. The Space comprehended by theſe Squares is no more than a Growth of green Moſs, ſeparated from the Border by a Path covered with Sand, or the Powder of burnt Bricks: And in order to adorn the middle of the Border, inſtead of Flowers which are uſually planted there, it would be more agreeable to draw a Line of Turf, ſeparated from the two Borders of Box, by a double Path of Sand.

Chevalier. This long Line of Turf, carried on through the whole Extent of the Border, may perhaps be proper, but it certainly muſt appear very naked.

Count. Care is taken to prevent that diſagreeable Effect in this manner. Along the Line of Turf, and at regular Intervals of Diſtance, 'tis cuſtomary to raiſe ſeveral little Pyramids of Ivy; between which, and upon Pedeſtals of Stone or Earth, caſed with Green, a Number of large Vaſes are placed, to receive in Panniers of Oſier ſeveral fine Cluſters of Dame's-Violets, Stock-Gilliflowers, Carnations, Crane's Bill, Spaniſh-Jeſſamines, and other Flowers that vary according to the Seaſon.

Chevalier. I entirely declare for the *Engliſh* Taſte, and think this Arrangement at once ſimple and magnificent.

Count. The Beauties of this Caſt are always more durable, becauſe they approach the neareſt to the Method and Taſte of Nature. This Parterre has likewiſe another Advantage: For as it requires but little tending, it is conſequently the better accommodated to the Country, where we have not always a Gardener, who has much Leiſure to employ in the Culture of Flowers. We find it very agreeable too in Town; for tho' this Parterre has a Variety of Ornaments, yet it frees us from the Neceſſity of renewing them perpetually, and is not ſubject to many little Inelegancies, which are almoſt inſeparable from Borders of Flowers.

Chevalier. I think I have ſeen Parterres of a third Species; I mean ſuch as are ornamented with Flouriſhes, or Shell-Work, with an intermixture of Turf.

Mixt Parterres, or Parterres in Compartments.

Count. In order to accommodate every Taſte, and thoſ Perſons in particular who fancy that neither Beauty nor Deſign can ſubſiſt withou Embroidery; a third Parterre has been invented, which is a Mixture of the tw former, and comprehends ſome Strokes o Embroidery; with a Surface of Turf, ſhaped into a Trefoil, a Flouriſh, a Shell, or ſome other Ornament they imagine moſt agreeable. Turf itſelf is not always th Furniture of this Plot; for it may be filled with Daiſies China Pinks, and Snow-Drops, which make a pleaſin Appearance in their Seaſon of Bloom, by the Name of their Flowers, and through the reſt of the Year, by their Verdure. But the Embroideries and Compartment muſt be executed with great Delicacy, and conſtantly repaired, by new Culture.

Chevalier. I give the Preference to the Parterre of the ſecond Species.

Count. We find it the moſt agreeable of any.

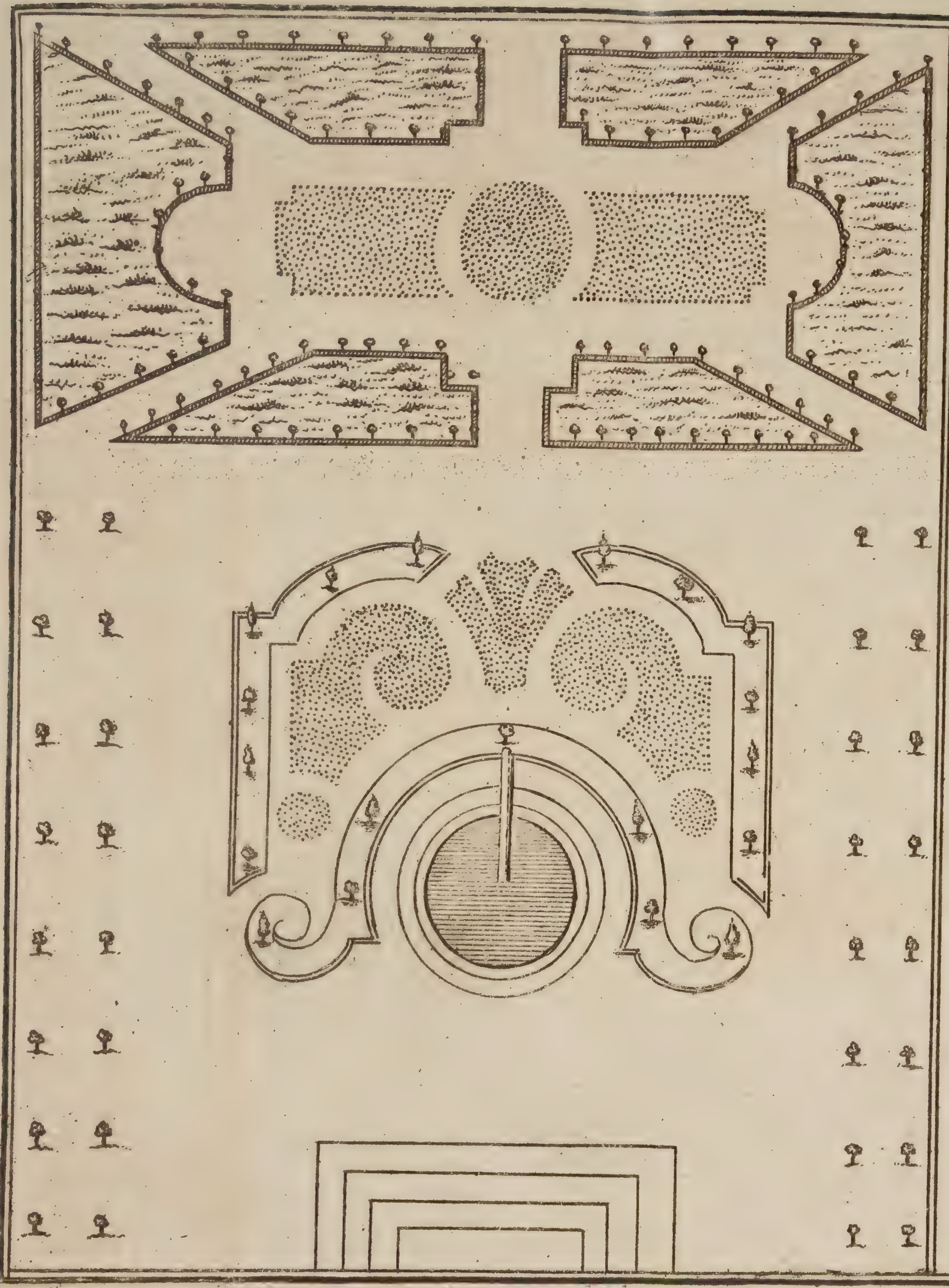
A Parterre in Cut-Work.

If you have a large Quantity of Flowers, and are curious to render the Enamel more lively, by ranging them near one another, your Parterre may be then formed in Sections or Cut-work, and you may divide your Plot into ſeveral ſquare or triangular Quarters round a Statue, a Baſon, or ſome other common Centre. You may likewiſe diſtribute into each Compartment an equal Number of Sections or Incloſures formed with Box, ſome ſquare, and others round, a third oval, and a fourth ſloping; in ſuch a manner, that the whole may preſent a juſt and regular Appearance to the Eye. They are all ſeparated by little Paths, equal on every Side; and this Diſpoſition not only contributes to the Regularity of the Deſign, but, at the ſame time, facilitates the Acceſs of the Floriſt, to the Beauties he poſſeſſes.

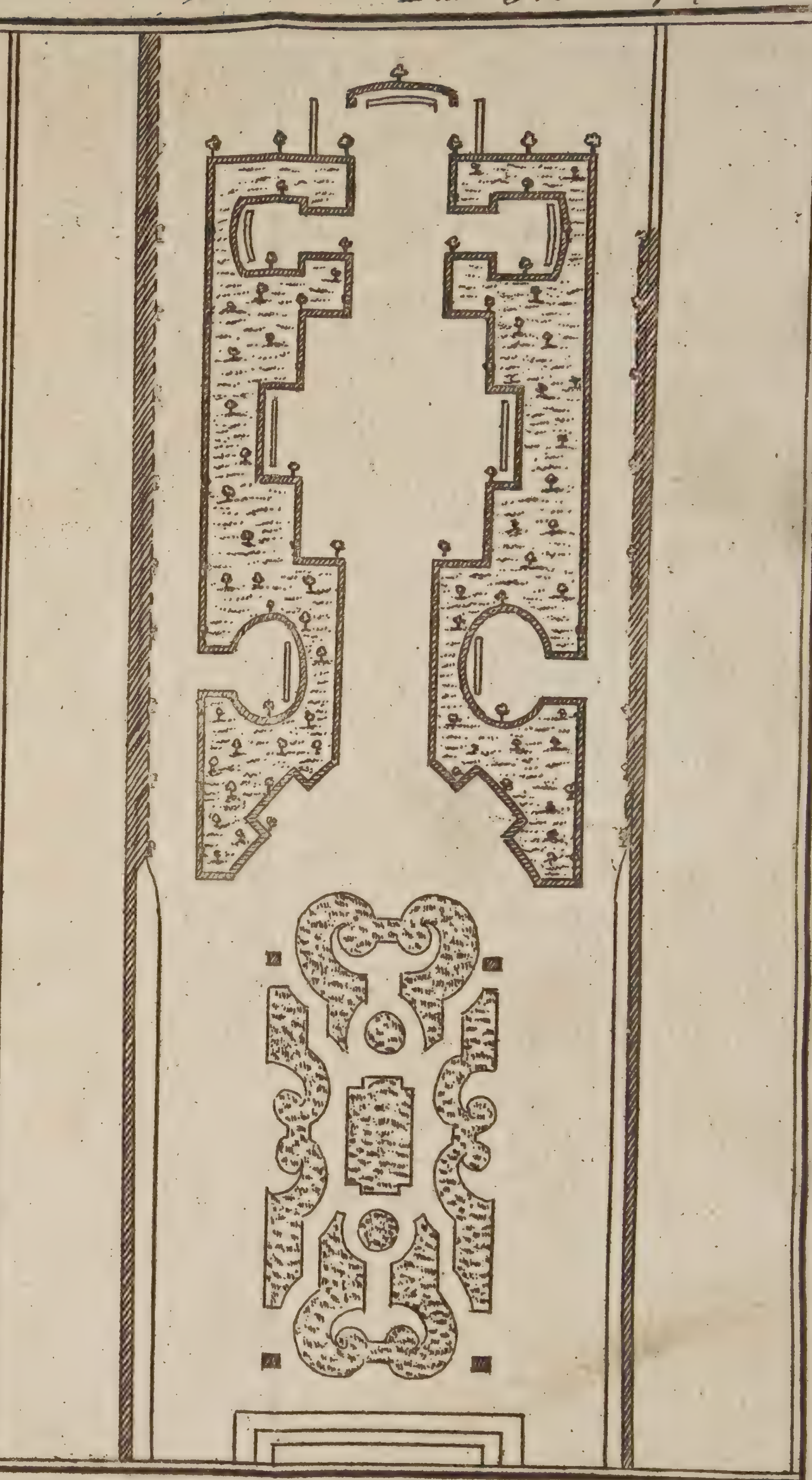
Chevalier. What are your Lordſhip's Sentiments of the various Windings we ſee in ſome Parterres? I am inclined to believe they are not agreeable to your Taſte.

Count. Inſtead of acquainting you with mine, which never preſcribes Rules to others, I ſhall only declare to you, that thoſe who are generally acknowledged to have a juſt Taſte, never amuſe themſelves with forming theſe

Plate 3 Vol. II page 28



A mixt Parterre



A Parterre
in sections or Cutwork

J. Mynde sc.

little Figures; and if you will let this Point be decided by their Opinion, a Garden divided with Uniformity into ſeveral long Squares, bordered with painted Wood, preſents the moſt amiable and regular Appearance to the View.

Chevalier. I ſhould be glad to be informed why the Beds of Earth, in which the Flowers are planted, are raiſed higher than the Walks.

Count. If the Flowers be either diſpoſed along the Borders that edge the Embroidery, or planted either in Compartments or Cut-work; or if it be thought ſufficient to place them under the Windows, in long and ſeparate Beds, and without forming them into a Species of Parterre; the Earth ſhould always be raiſed toward the Middle, and carried down in a double Slope. This Diſpoſition gives a Flow to the Water, which would otherwiſe rot the Stems of the Plants, by continuing too long on a level Surface. This Eminence likewiſe diſengages all the Flowers, and enables them to riſe one above another, like the Ranks of an Amphitheatre.

A Theatre of Flowers.

Chevalier. The Prior has ſtill another Method; for, beſides the Flowers of his Parterre, he has a Number which he diſpoſes apart, on ſeveral Stages, where they are more viſible.

Count. Thoſe who are curious, and eſpecially the profeſſed Floriſts, have Recourſe to this Expedient, which gives them a more commodious View of their Plantation, and enables them to cultivate ſome favourite Flowers with the greater Freedom. This Diſpoſition is called a Theatre of Flowers, and conſiſts of ſeveral Ranks, or Steps of Wood, aſcending one behind another, by which Means the Eye, as well as the Hand, may be extended to all Parts, without any Impediment. This particular Structure is uſually reſerved for Auricula's and Carnations; and as theſe Flowers require more Shelter from a hot Sun-ſhine, and Rains, than others; the Theatre is always accompanied with a little Roof of Wood, or waxed Cloth, and is likewiſe placed at ſome Diſtance from the Wall, to give the Air a free Circulation around it; and in order to exclude Earwigs, Snails, and other Vermin, the Feet of the Stage that ſupports the Theatre, are placed in leaden Vaſes, which muſt always be full of Water: This Precaution will ſecure the Flowers from thoſe noxious Inſects, who will immediately retire from the Vaſes rather than ſwim through the Water, to make their Depredations on your Flowers.

Chevalier. Some curious Perſons in the Neighbourhood have another kind of Theatre, which they call, *a Pyramid of Flowers.* When thoſe, which are moſt beautiful, have adorned the Parterre for ſome time, they cut them towards the bottom of their Stems, and then place them in Vials on the Steps of a Pyramid, raiſed for that purpoſe, in the middle of their Halls; where they preſerve them a conſiderable time, by the Aid of Water and Shade.

A Pyramid of Flowers.

Count. This Invention may aſſemble, in one View all the various Beauties that were ſcattered through the Parterre, and regale us with a new Scene of their Perfections.

Vaſes.

It is likewiſe uſual to provide Vaſes, or Pots, made of Earth, Braſs, Lead, or any other Subſtance, in order to beſtow new Ornaments of Flowers on the Parterres themſelves, as well as on low Walls, Terraſſes and Balconies. Theſe Vaſes unfold their Flowers with an advantageous and noble Air, and facilitate their Cultivation, by enabling us to place them either in Shade or Sun-ſhine, as may be moſt proper and beſt ſuited to the Seaſon.

Chevalier. Is there not ſome other Advantage to be gained from the Pots which are capable of being removed where we pleaſe?

Count. What may that be?

Chevalier. We might place the Flowers as near to each other as we ſhould think fit, in order to diverſify the Colours of thoſe which are to ſpring from their Seeds; and poſſibly to preſerve the moſt amiable of the Tribe from any Intermixture or Variation, from Year to Year, by diſpoſing them apart from others.

Count. In what manner do you conceive, that one Flower makes any Diſcovery, or not, of its Neighbourhood to another?

Chevalier. An *Engliſh* Gentleman happened Yeſterday to paſs this Way, and having heard ſome Account of your Lordſhip's Flowers, expreſſed an Inclination to ſee them. The Prior and myſelf were much delighted while we entertained him; and he aſſured us, he was perſuaded that the Powders, which fall from the Tops of the Chives, are frequently wafted to ſome Diſtance by the Motion of the Air; and that by their Action on the Piſtil or Style of another Flower of the ſame Species, but of a different Colour; they impregnate ſome of its Seeds, and diffuſe a new Tincture into the Colours of the Flower, which ſprings from that Seed.

New Improvements, *&c.* by *Rich. Bradley*, Fellow of the Royal Society. Vol. I.

Count. This Obſervation may, in my Opinion, be juſtified, by many ſurpriſing Varieties, that are diſcovered every Year in the Flowers raiſed from the Seed of thoſe which are ranged together on a Theatre, or reared in the ſame Bed.

Chevalier. Our *Engliſh* Gentleman acquainted us with another Particular, which may poſſibly be very uſeful, were the Experiment certain. He aſſured us, that when he had cut the Chives of certain Flowers before their firſt Opening, he placed thoſe Flowers at a Diſtance from the reſt, and had never obſerved them to produce any Seed; but added, that when he had cut the Chives of ſome others, and left them in the common Bed with their Companions, he found them all impregnated with Seeds, which undoubtedly, were imparted by the neighbouring Flowers. He likewiſe obſerved, that after he had cut the Chives of a Flower when it was firſt unfolded, he ſcattered on the Heart or Style the Powder of another Flower of the ſame Species, that was fully blown, and which created a remarkable Change in the Flower he had deprived of its Seed. But he ſurpriſed us extremely when he added, that the ſame Experiment made on Flowers, which entirely differed from each other in their Nature and Qualities, produced Seeds; and that the Flowers, which ſprung from them, were compoſed of thoſe different Qualities: but he aſſured us that theſe new Flowers, which had no Similitude to any others he had ever ſeen before, were unproductive of any Seed the next Year, and not perpetuated like the reſt.

Count. Were this Fact certain, it would have ſome Correſpondence with the Birth and Sterility of Mules, who may be conſidered by us as Monſters, becauſe they are the Offspring of Animals, who not only differ in Species, but likewiſe in Nature. But repeated Experiments muſt inform us of the Conſequences and Practice that may be derived from a clear Knowledge of the Structure of Flowers.

Chevalier. I intend to make all theſe Experiments with as much Circumſpection as poſſible.

Count. I am pleaſed with your Curioſity. Be ſure to cut a Number of Chives, and inform yourſelf by all the Trials you can invent, neither your Time nor your Money will ſuſtain any Riſque by this Proceeding. I think I have ſome Experience in the Management of Gardens, but ſhall be charmed to receive any Information from you. And though I am far from reſigning my Judgment to the firſt plauſible Idea preſented to me by other Perſons, yet I think it a criminal Preſumption to be ſo tenacious of one's firſt Knowledge, as to diſlike any mention of new Diſcoveries. We are ſtill in the Infancy of Arts.

Chevalier. My *Engliſh* Obſerver has excited my Curioſity; but at preſent, I am moſt attentive to the common Method of raiſing Flowers.

The Preparation of the Earth.

Count. They require Attentions of two Kinds; the one are common to all, and the other peculiar to each Species. The firſt, which we will, at preſent, conſider, are the Preparation of the Soil, the Manner of multiplying Flowers by the Seed, and the Nurture of the Plant.

Our firſt Care is to provide early in the Seaſon a Quantity of pliant and vigorous Earth, which we incorporate with that which is light and ſandy, and improve it with an Intermixture of Mould, which is only Compoſt, entirely rotten, to which it may be very advantageous to add a Proportion of Aſhes. Theſe Earths ſhould be paſt, in equal Portions, either through a Hurdle, or an Iron Sieve: or we may let the rich Earth predominate in one Heap, and the thin Soil, or likewiſe the Mould, in the other

Parcels. It will be proper to let theſe Earths lie uncultivated, for the Space of one Winter at leaſt, that they may be entirely blended together; but there are ſeveral Floriſts, who ſuffer them to continue two Years, or even a longer Time, in this Manner. You are ſenſible that all Flowers ſpring either from Plants that have Roots, or from thoſe that are bulbous, which are ſuch as are produced from a Body like an Onion. The rich Earth is uſually appropriated to the Roots, and that which is thin to the Bulbs.

But it is not ſufficient to have made the firſt Compoſition of theſe Ingredients; for as Plants are continually attracting the Juices of the Earth, theſe would ſoon be exhauſted, were not that frequently recruited with the proper Mixtures, and applied from Time to Time to the Plants. Care ſhould likewiſe be taken not to open the Mould too much, when the Plant has a Root; but if it ſprings from a Bulb, it will be neceſſary to raiſe it entirely out of the Earth, once in three Years at leaſt.

The Neceſſity for Sowing.

The ſecond Method, which is common to all, or the Generality of Flowers, is to multiply them by Seed; tho' this Effect may be obtained by other Means. Seeds are infallible Expedients for a plentiful Production as well as for Variety and repeated Novelties.

When Gardening began to be greatly improved in the laſt Reign, which revived a general Elegancy of Taſte, we were ſupplied from *Flanders* and *Holland*, with thoſe Flowers that were moſt amiable and uncommon. Several curious Perſons in the *Low Countries* frequently diſcovered new Species in every Claſs of Flowers, by their Practice of Sowing; and indeed they were the only People by whom this Practice was obſerved, poſſibly becauſe we were not diſpoſed to purſue that Method, or could not eaſily accommodate our natural Impatience to the ſlow and diſtant Events of Experiments. However, we at laſt grew diſſatisfied with purchaſing, at a great Expence, from Foreigners, thoſe Beauties, and diverſified Novelties, which our own Soil was capable of producing. The Floriſts of *Paris*, and ſome Provinces, eſpecially *Normandy*, and *Caen* in particular, began to imitate the *Flemings*, in their Manner of Sowing, and even in larger Quantities; which, in Conjunction with the benign Temper of our Climate, furniſhed us with Riches much ſuperior to thoſe we received from the *Netherlands*. We no longer needed the Aſſiſtance of Foreigners, and they frequently made their Court to us.

The Seed.

The Seeds of Flowers ſhould be gathered and kept dry. When the Stems that ſupport them begin to aſſume a yellow Hue, or when the Seeds may be judged to be ſufficiently ripe, it is uſual to cut the Tops of the Stems, and to leave the Seeds in the natural Coats that encloſe them. They are expoſed for ſeveral Days in a warm Sun-ſhine, which hardens the Skin that enfolds the Seeds, and contributes to their better Preſervation.

The proper Seaſon for Sowing.

The Seeds are ſown either at the Beginning of Spring, that the Plants may be rendered capable of ſuſtaining themſelves during the dry Seaſon of Summer; or they are ſown in *Auguſt* and *September*, that they may have ſufficient Time to be fortified againſt the Froſt. But as each Seed has its peculiar Seaſon wherein it proves moſt ſucceſsful, if you ſhould happen to be uncertain of the proper Time, or have Foreign Seeds to ſet, and with whoſe Cultivation you are unacquainted, it will be proper to diſtribute them into three Parcels, the firſt of which you may ſow in Spring, the ſecond in Summer, and the third in Autumn, by which Means you may be certain to enjoy the Production you deſire.

The Seed may be planted either in a Bed, when the Compoſt has loſt its Heat; or in larger Plots of Earth diſpoſed into Tracks, ſeparated from each other by a Breadth of four or five Fingers; or in flat and portable Boxes, in whoſe Bottoms ſeveral Apertures ſhould be made with an Augre; and theſe are to be covered with an Inch Depth of Pit-Coal, or any other porous Subſtance.

Chevalier. This Preparation is apparently intended to facilitate the Efflux of the Water.

Count. It would chill the whole Maſs, were it to remain there too long.

Chevalier. To what particular Seeds are thoſe portable Boxes appropriated?

Count. To thoſe whoſe Culture is delicate, or to ſuch as are moſt in our Eſtimation, theſe little Boxes are commodious Cradles for the vegetable Infancy, which by this Expedient may be diſpoſed either in Sun-ſhine or Shades, and may be viſited by the Dew, or covered from it, as Occaſion requires.

The Earth of theſe Boxes cannot be too looſe and penetrable; for as the Flowers and their Roots require a light Soil, it muſt be evident, that a hard and compact Earth would be very pernicious to the delicate Fibres that ſhoot from the Seed.

The Seeds are ſown almoſt even with the Rim of the Box, and are covered with half a Finger's Depth of Earth, ſhook through a Sieve. A thin Surface of Straw will likewiſe be neceſſary, to prevent the Seeds from being carried away by the Water, and to preſerve them from the immoderate Heats which would otherwiſe rot or ſcorch them, as well as diſſipate the Juices, by which they are nouriſhed.

Chevalier. But what Advantages can be derived from ſuch a Multitude of Flowers as ſpring from Seeds? Their Number ſeems a little perplexing.

Count. The very Circumſtance of their being ſo numerous, enables us to ſelect the fineſt of each Claſs, in Quantities ſufficient for our Purpoſe; and when we have replanted thoſe Species which are moſt vigorous, and in the greateſt Eſteem, we may tend them agreeably to their particular Conſtitutions, or the Exigence of the Seaſons. In proportion to their Delicacy we cover them more or leſs in the Winter, with Mats ſupported by wooden Forks or Hoops, or elſe with common Straw or dry Compoſt. The Refreſhments we afford them muſt correſpond with the Drineſs of the Seaſon, and we ſhould never water them with a Veſſel that has only one Spout, which will be injurious to the Plant, as the Stream flows with more Violence than when it paſſes through the Ball of a Watering-Pot, that is perforated with ſeveral Holes, which diſtribute the Water into a Variety of little Streams, and render it a gentle Dew, whoſe Humidity at once refreſhes the Plant, and all the adjacent Earth. We ſhould likewiſe be careful to viſit the young Plants from Time to Time, in order to free them as well from Snails and other Vermin, that gnaw them, as alſo from rotten or diſtempered Leaves, which are apt to communicate their Infection to the Heart.

When it becomes proper to place them in Pots, the opening, at the bottom of thoſe Veſſels, ſhould be covered in ſuch a manner that the Water may have a free Paſſage, at the ſame time that all Worms are excluded. In the Seaſons of Great Rains, Hail or Storms, it will be neceſſary to lay the Pots with their Sides to the Earth, and their Bottoms turned to the Wind.

Chevalier. This Precaution will ſecure the tender Plants from many Injuries; but I generally ſee the Pots ſunk into the Earth; ſo that it ſhould ſeem needleſs to tranſplant the Seed into thoſe Veſſels.

Count. They are ſometimes ſunk in a Bed, that they may be cheriſhed with a proper Warmth; it is likewiſe cuſtomary to plunge them in the common Earth, that they may imbibe a certain Spirit which ſteams from the Ground, and is finely accommodated to Vegetation. They are afterward removed into the Shade, by which Expedient we are enabled to manage the Plants as we pleaſe, and may eaſily afford each Individual the Aſſiſtance it requires.

As to any other Attentions that may be neceſſary in the Culture of Flowers, you may inform yourſelf in this Place of all you deſire to know. The Counteſs is extremely fond of theſe beautiful Productions, and I muſt not deprive her of the Pleaſure of entertaining you on that Subject.

THE CULTURE OF FLOWERS.

DIALOGUE III.

The CHEVALIER. *The* PRIOR. *The* COUNTESS.

Counteſs. THE *Chevalier* has choſen the Spring and our Part of the Country, for his Study of Nature; we muſt each of us therefore endeavour to contribute to his Inſtruction. My Province is the Care of Flowers, and I would willingly enjoy them through all the Seaſons of the Year, in the Parterre as well as in my Apartments, and all my Deſerts; and I muſt confeſs that, ſince I amuſed myſelf with their Cultivation, my Houſe appears much more agreeable than it did before. I am ſenſible, by Experience, that gloomy Diſpoſitions and undelightful Ideas are brighten'd into Gaiety and Joy by the Preſence of Flowers. The Sight and Fragrance of one Jonquil is ſufficient to diſſipate a melancholy Caſt of Mind; and it is hardly poſſible to aſſume an Air of Diſſatisfaction near a Cluſter of Jeſſamine and Roſes. Sadneſs itſelf diſappears at the View of ſuch Objects as theſe. I have diſtributed Flowers into every

Part of this Retreat, and have an infinite Pleaſure in cultivating the moſt amiable of each Kind. This, Sir, is my Philoſophy; and tho' its Aſpect may be ſomething ruſtick, it never fails to amuſe me, and you are ſenſible it is not altogether inſignificant. I will acquaint you, if you pleaſe, with three or four of its Articles, ſuch as the Auricula, the Anemone, the Ranunculus, and the Carnation. The Prior will inſtruct us in the Cultivation of Tulips. But can you prevail upon yourſelf, Sir, to be contented with this Entertainment?

Chevalier. Contented, Madam? I really think it the moſt charming Philoſophy in the World, and none can ever complain that it leads them into thorny Paths.

Prior. The moſt painful Philoſophy would never diſpleaſe me, if its Effects were always as valuable as a ſingle Tulip.

The Auricula, or Bear's Ear.

Counteſs. Let us begin with Auricula's. We have here ſome of the Plants which produce thoſe Flowers, and their View will enable us to underſtand them. This Flower has ſeveral Qualities which entitle it to our Eſteem. We admire the Vivacity of its Colours, the Agreeableneſs of its Perfume, the Variety of its Kinds, and the Duration of its Cluſters. And tho' the fineſt of the Species diſappear before the Cloſe of Spring, here are ſome that ſtill preſerve an engaging Aſpect; and there are others which even continue to the Summer-Seaſon. The Prior a few Days ago acquainted us with the Hiſtory of this Flower; but the Country whence it originally came has eſcaped my Memory.

The Hiſtory of the Auricula.

Prior. The Auricula is a Native of the *Alps*, tho' ſeveral Perſons believe it to be a Product of *France*, and aſſure us they have diſcovered great Numbers of its Plants in our Meadows. They add, that ſome *Flemiſh* Merchants, delighted with the Luſtre and Fragrance of theſe ſpontaneous Flowers, which they obſerved in their Travels, tranſplanted ſeveral of them to *Liſle* in *Flanders*, and were very careful of all thoſe Productions that were moſt beautiful. It is not eaſy to be imagined, how much this wild and neglected Flower was diverſified and rendered perfect by a due Cultivation.

Counteſs. It return'd from *Liſle*, to its Native Land, in all the Charms of Novelty, and we afforded it a favourable Reception,

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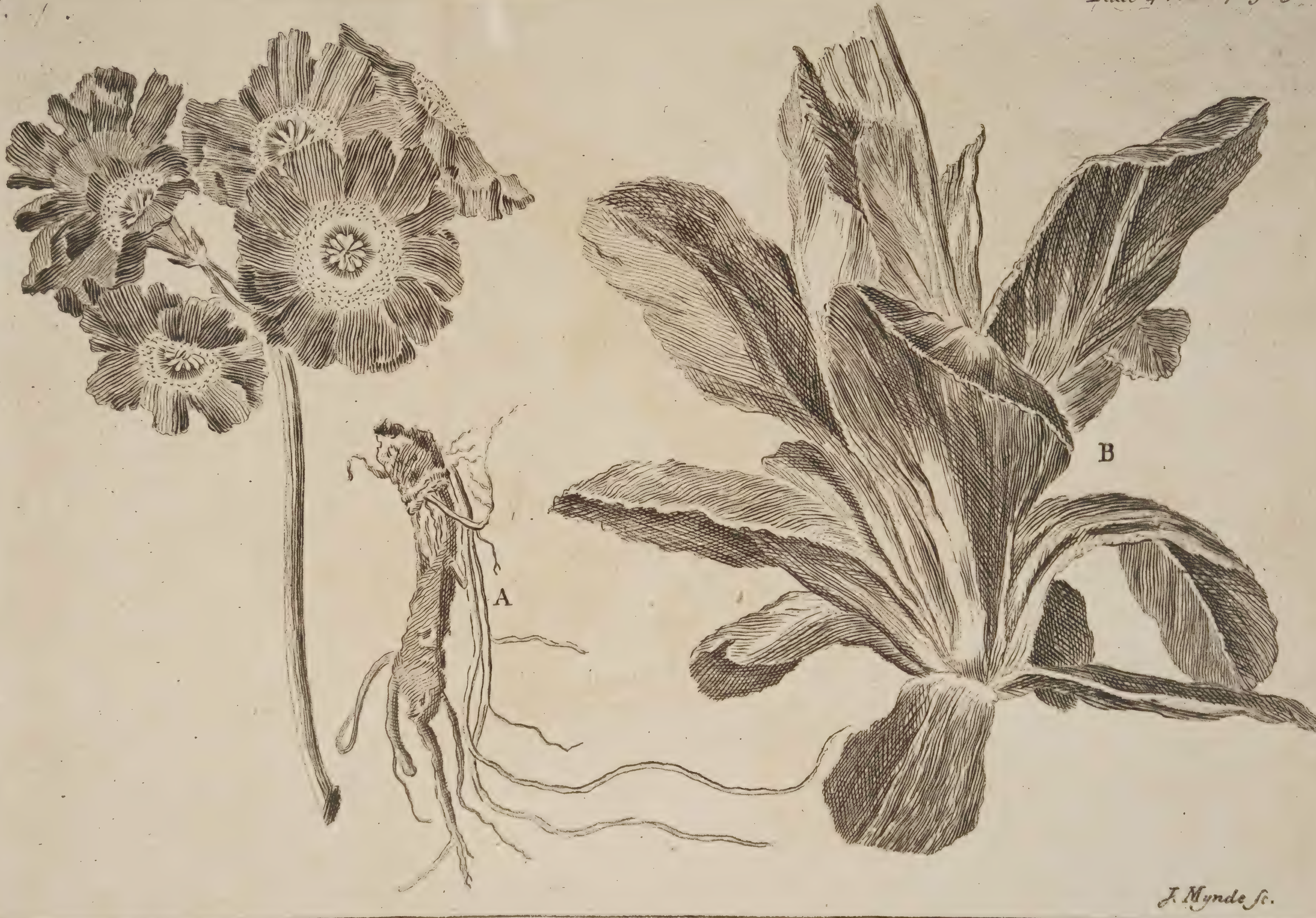


The Auricula Urſi or Bear's Ear with its Root A. And green Foliage B. that encompaſses the Flower.

Reception, not only as it had the Air of a Foreigner, but becauſe it was amiable in the utmoſt Perfection.

Chevalier. I ſhould be glad to know what Qualities are neceſſary to render it complete.

The Qualities of a fine Auricula.

Counteſs. We think it moſt agreeable when it enjoys a ſtrong and ſubſtantial Stem; and when the Number of its Bells, which riſe on that Stem, are large and diffuſed into a graceful Cluſter, without inclining too much to the Earth.

Prior. It appears in that defective Poſition, as you may obſerve in this Plant before us, when the Pedicles, which are the little Footſtalks that ſuſtain the flowery Bells, are either too long or to ſlender.

Counteſs. The Flowers ſhould likewiſe be large, well tiſſued, and regular in their Forms. The Forms of each ſhould be very ſmooth, and their Colours of a lively Glow. The Chives ſhould not ſhrink to the Bottom of the Vaſe, but ought to be diſpoſed around its Opening, in the Form of a little Sun. They are very defective when the Piſtil becomes viſible, and the Chives are concealed. The Eye, which adorns the Bottom of each Flower-Cup, ſhould be exactly rounded, unleſs it happens to be wrought into a perfect Star, which is not diſagreeable; but it ought in particular to be large and white, or at leaſt as clear as poſſible.

Chevalier. Are not theſe a Set of Modes that are variable? Perhaps the Flower may hereafter be thought more agreeable, were the Piſtil to appear inſtead of the Chives; and it may poſſibly be eſteemed more pleaſing in proportion to the Smallneſs of the Eye, and the Moderation of its unfolding Colours.

Counteſs. That Suſpicion has but little Probability. The Chives ſhould riſe from the Bottom to prevent the Appearance of a vacant Space, that will always disfigure the Flower: The Eye ſhould likewiſe be large and clear, to give a Luſtre to the prevailing Colour.

Chevalier. Are not the Stripes preferr'd to ſuch Colours as are not varied with any Intermixture?

Counteſs. They were formerly in much greater Eſteem than they are at preſent, but they are found by Experience to be leaſt durable. The Stripe frequently drinks up all the Colour, by enlarging its Dimenſions from Year to Year. The unblended Colours are more valued when they are ſtrong and radiant. Thoſe that imitate the Gloſs of Satin and Velvet have the firſt Rank allotted them by the Curious. A few Irregularities of Growth give them an agreeable Variety; you may obſerve ſome, whoſe Cups riſe one above another, in two or three Stages; but this is rather an imperfect Arrangement, than any real Beauty.

Chevalier. Do not the Auricula's require a peculiar Soil and Cultivation?

Prior. It is certainly a voracious Plant, and muſt be rear'd in a ſtrong Earth intermixed with Cow-Dung, to render it ſoft and oily; this Earth ſhould likewiſe have a Proportion of Horſe-Dung, or Sand, to make it light and pliant. The Flowers love a Freſhneſs of Air, and cannot long ſubſiſt in the Sun-ſhine, eſpecially at Noon, unleſs it be in the Winter-Seaſon.

Beſide the Method of raiſing it from Seed, it may be multiplied by Off-ſets; or, in other Words, we may ſeparate and tranſplant the little Shoots that ſpring from the principal Stem. Its Root, which is a kind of Turnip, may be ſafely cut, when we cannot otherwiſe diſengage from it the little Fibres, or Roots, that are neceſſary to each Off-ſet. When we have Recourſe to this Operation, great Care muſt be taken of the Buds in the main Stem, which are the Hopes of the ſucceeding Years; and when we tranſplant this Stem, with its Shoots, the Fibre which connects the Root with the Stem, muſt be always raiſed above the Earth.

The Anemone.

Counteſs. Let us now proceed to Anemones; for tho' their Seaſon be far advanced, we have ſeveral of theſe Flowers that are ſtill very amiable. They are ſatisfied with a light and ſandy Soil, enriched with a Mixture of Compoſt: I don't find that our People afford them any other Preparations; and if they are but ſhelter'd from immoderate Heats and Colds, they generally thrive in a very agreeable Manner.

Chevalier. It is really an inchanting Flower; but I could be glad to know why it charms me to ſuch a Degree?

The Qualities of a fine Anemone.

Counteſs. Its Beauty reſults from the juſt Symmetry of all the Parts that compoſe it. The green Leaves that ſurround it without, ſhould be low, thick ſet, and finely cut; the Stem ought to be ſtrong, in order to ſuſtain the Flower, without bending under the Weight; the Head muſt be elegantly rounded, and the Colours bold and radiant. All faint Hues in general are rejected. The large Leaves that unfold the outward Surface of the Flower, and are called the Robe, ſhould neither be ſtrait nor pointed, but round and ſpreading. The Tufts of ſmall Leaves, that cover all the Flower within, ought to be formed into a Dome, by gently bending toward the Heart. The larger theſe Leaves appear, the more graceful they render the Flower; but when they happen to be ſharp and narrow, the Anemone is diſregarded, and degenerates into a Thiſtle. The ſlender Band at the Heart ought to differ in its Tincture from theſe Leaves, and ſhould appear but little, or rather not at all, leſt it occaſion a Swelling, and it muſt never riſe higher than the leafy Turf. When any ſuch Swelling is created, and if by unfolding itſelf, it diſcloſes either the Seeds, or the Tops that cover them, the Anemone is deſtroyed; for it then begins to diveſt itſelf from Year to Year of its inward Leaves; to whoſe Number and Subſtantialneſs it owes its chief Beauty.

It is not ſufficient to be acquainted with fine Anemones, but it likewiſe requires Judgment, to form a beautiful Bed of theſe Flowers; in which Particular two Precautions are neceſſary. In the firſt place, we muſt give them a proper Intermixture, by diſpoſing the Flame Colours after the Carnation; the White, the Violet Hues, and the Bizarres, ſhould next appear, and be ſucceeded by the brown, the ſtriped and clouded Dyes. We ſhould likewiſe be careful to cut off all the weak Stalks that appear on each Plant; by which means, a copious Nouriſhment will be imparted to the reſt, and a thriving Vigour be diffuſed through the whole.

Prior. When the green Leaves that encompaſs the Flower begin to wither, the Roots ſhould yearly be raiſed out of the Earth, and replanted in Autumn, or *February*; but leſt any Accident ſhould ſcorch and deſtroy what was planted before the Winter Seaſon, it is uſual to preſerve in ſome dry Place a large Number of theſe Roots, which never ſhoot in the Repoſitory, like Onions, and are even good when they have been kept two or three Years. Theſe, in the Spring, may ſupply the place of thoſe whoſe Bloom is over.

Chevalier. I ſhall not forget this Precaution: But you ſpeak of Anemones, Sir, as if they only appeared in the Spring, and yet I have frequently ſeen them in Autumn.

Counteſs. One may eaſily ſecure an agreeable Succeſſion of theſe Flowers, through all the Seaſons of the Year. If we plant them in the different Months of Spring, we ſhall always have new ones, from the latter end of *June* to the end of Summer; and thoſe we plant in *July* and *Auguſt*, will continue to embelliſh the cloſe of Autumn, and the very heart of Winter. This is a Pleaſure too eaſily attainable to be neglected.

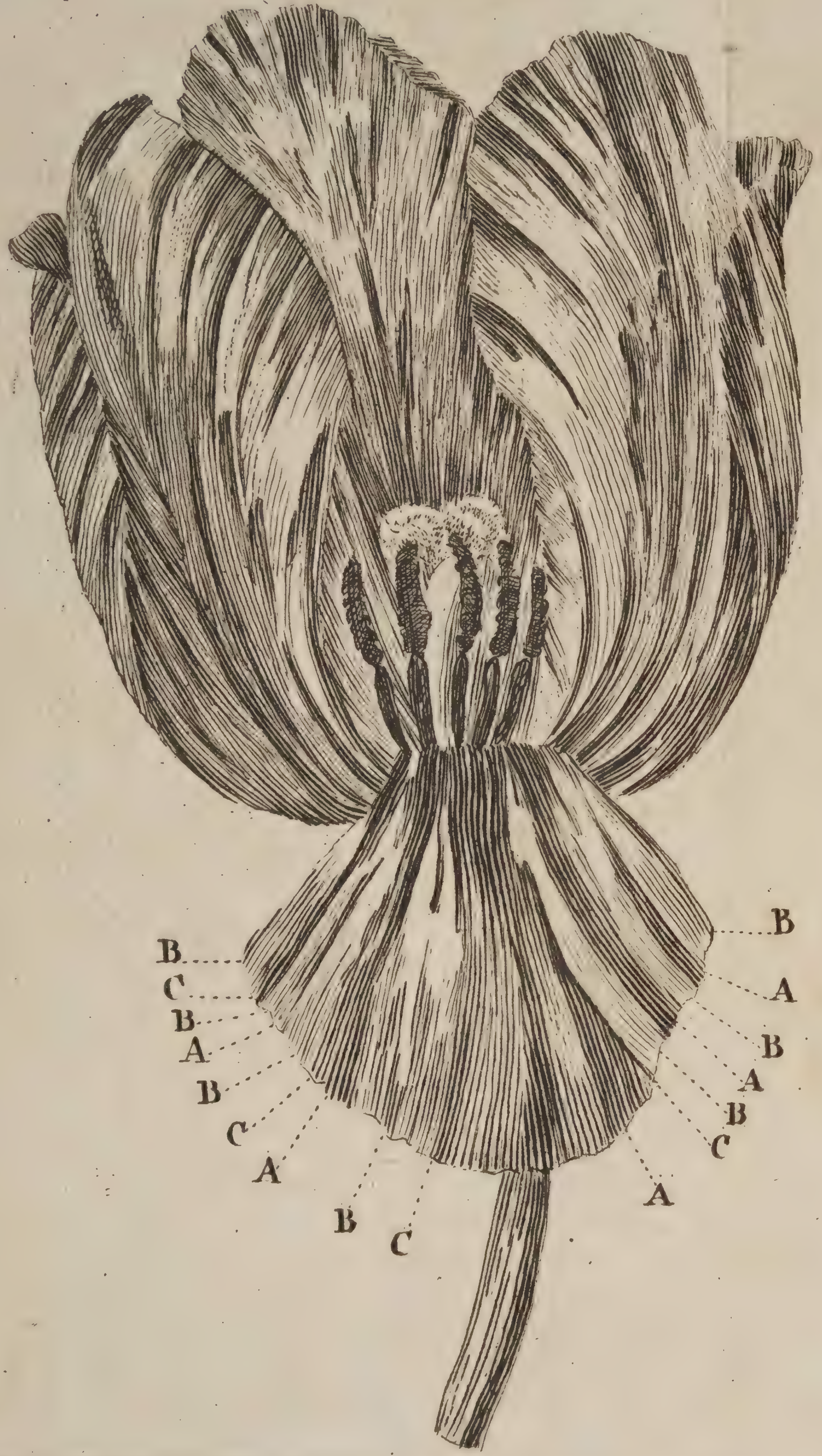
Chevalier. Is it certain from whence we received the Anemone?

Prior. It has been conſtantly known among us, and is mention'd in all our old natural Hiſtories.

The Hiſtory of the Anemone. Fuſh. Hiſt. Plant. II. Paridiſo de Fiori.

Counteſs. The fineſt Anemones are not ſo ancient; and I have been told, that Monſieur *Bachelier*, a famous Floriſt of *Paris*, cauſed them to be brought to us from the *Eaſt-Indies*, about fourſcore Years ago. There are ſome People, who when they acquire any agreeable Curioſity, have a Pleaſure in comunicating it to the Public as much as poſſible: This is an Inſtance of the nobleſt Diſpoſition, and the Chevalier will undoubtedly be diſtinguiſhed by it. But there are others who poſſeſs a Flower, or a Fruit, with as much Avarice as ſome People hoard up Money; which they can never beſtow on others, without thinking it loſt to themſelves. This might poſſibly have been the Character of Monſieur *Bachelier*, for he lived ten Years without imparting, to any Perſon, the leaſt Fibre of the double Anemones, or one Seed of the ſingle Flowers. A Counſellor of the Parliament, who was diſpleaſed to ſee one Man engroſs a Benefit that was qualified by Nature to be common, made him a Viſit at his Seat; and as he paſt by his Anemones, that were then in Seed, he artfully let his Robe fall upon the Down of the Flowers, and it ſwept off ſeveral of the little Grains. His Servant, who had been inſtructed how to act, immediately caught up the Robe, and folded it over the Seeds that were faſtened to it. The next Year, the Counſellor ſhared the Produce of his innocent Theft among his Friends, and by their Agency imparted it to all *Europe*.

Chevalier. The Anemones ſuſtain ſome Diſadvantage from that Bed of Tulips.



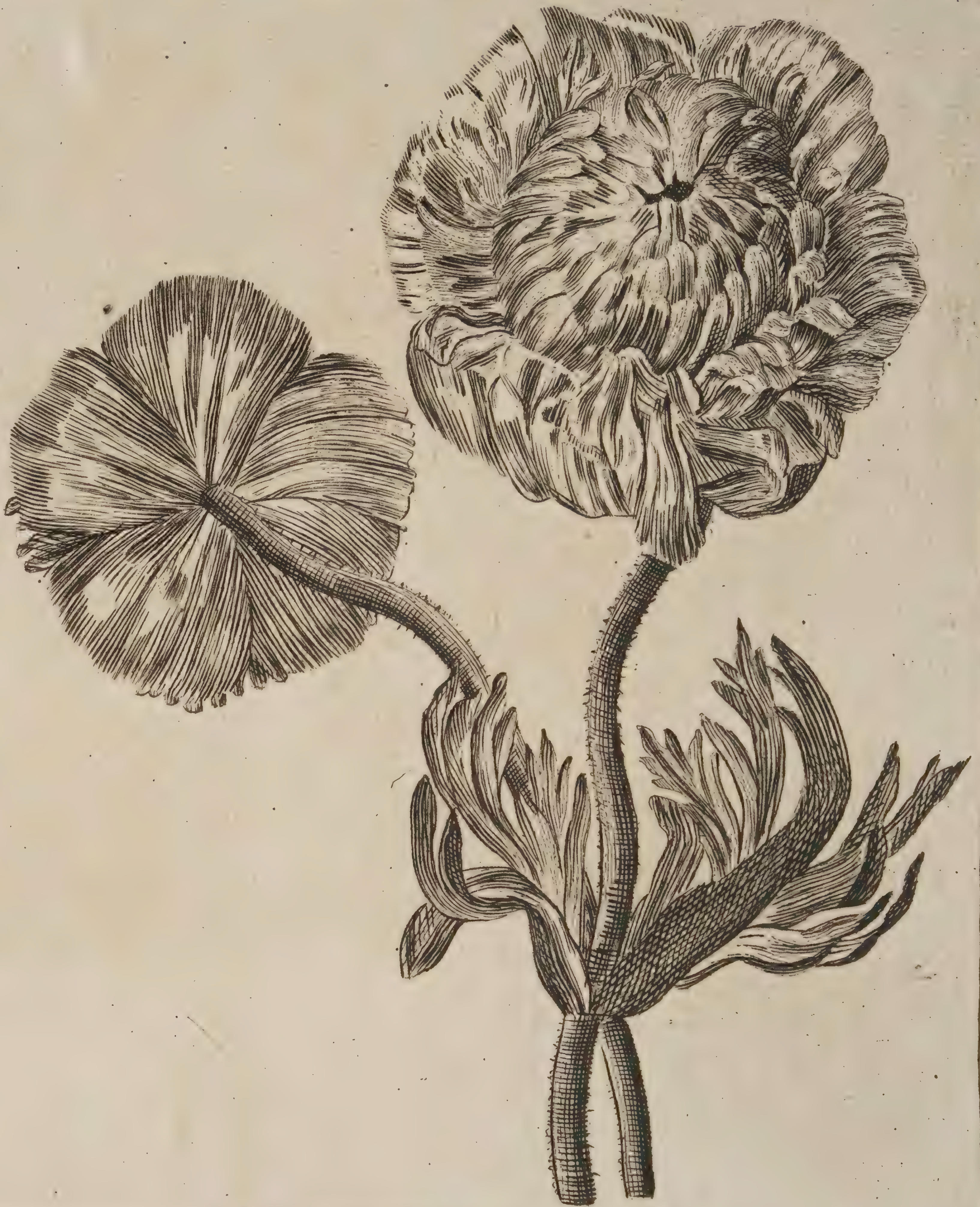
I Mynde sculp.

The Tulip.

A. *The predominant colour.*

B. *The variegated stripes.*

C. *The black rays, which facilitate the dying away of the colour in the stripes.*



The Anemone.

Counteſs. The Form of the Anemone is more delicate, but the Tulip eclipſes it by the Luſtre of its Colours; and in this particular it may juſtly be called the Queen of Flowers. The Prior has amuſed himſelf with their Cultivation, and is better acquainted with them than myſelf.

The Tul p.

Chevalier. Here are ſeveral diſpoſed into Beds apart from the reſt: Are they ſeparated in this manner becauſe they are not ſo beautiful as the others?

Prior. Thoſe Beds are the Nurſery, and the Flowers they contain are called the Colours.

Chevalier. I am entirely unacquainted with that Term; and muſt intreat you, Sir, to favour me with its Explanation.

Prior. It is this. A Tulip may be multiplied either by its Seed, or elſe by its Off-ſets. The Seeds produce a little coated Root like an Onion, which muſt be replanted at the end of two Years, but it never blows till the Expiration of five or ſix. Its Production ſeems at firſt contemptible and indelicate, for it is only a large Flower tinged with gray, a Violet blue, or ſome other faint and gloomy Colour, and it riſes on a monſtrous Stem: But theſe Colours are afterwards improved in a ſurpriſing manner, and will gradually unfold a ſplendid Variety. The Tulips that ſpring from the Seed are called the Colours*, till they are finely marked with ſome Stripe of a new Tincture. Thoſe we receive from *Flanders* are diſtinguiſhed by the Name of Wands, on account of the Strength and Loftineſs of their Stem.

Colours.

Tulips raiſed from Seed.

When they have been diſearth'd and replanted for ſeveral ſucceſſive Years, Tulips produced from Seed begin to break the Stripes, and are then called *Conqueſts*, or more uſually *Chances*, becauſe they are Beauties on whoſe Continuance we can never depend with any Certainty. A Series of Years, a Thinneſs of Soil, and repeated Tranſplantations, gradually change, or ſully the predominant Colour. The Stripes therefore may be conſidered not as a Diſtemper, but rather as a kind of Weakneſs imparted

Chances.

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* They are called Breeders by our *Engliſh* Floriſts.

ed to the Plant, in Proportion as the Flow of Sap is more or leſs delicate: And this Effect correſponds in a great meaſure, with the White and Grey that alter the natural Colour of our Hair, at the Approach of Old Age. There are ſome Heads, on which this Change has no unamiable Appearance; and it is frequently attended with peculiar Graces.

Off-ſets. The ſecond Method of multiplying Tulips is by Off-ſets, which are little coated Roots, that ſpring from the large one, and ſhould yearly be ſeparated from it. Thoſe Plants whoſe Roots reſemble an Onion, are commonly perpetuated by Off-ſets of this Nature, which may be conſidered as the younger or collateral Branches of the Parent-Root: And while this exhauſts its Vigour, and diveſts itſelf of all its Juices for the Nouriſhment of the Flower, the Off-ſet that is ſtrongeſt, and moſt advanced, becomes the principal Root; and when we raiſe it out of the Earth, 'tis cuſtomary to diſengage it from the others, which when they are afterward replanted, will produce Flowers the ſecond or third Year.

Counteſs. I think, Sir, you enable me to account for an Appearance that has frequently embarraſſed me. When the Root of a Tulip begins to ſhoot, we ſee the Stem riſe from its Heart; but when we take it out of the Earth, the withered Stem appears on the Side of the Root. I now can comprehend the Cauſe of this Circumſtance. The Root that has been raiſed out of the Ground is not the ſame that was planted in Autumn.

Prior. The Subſtance of the Autumn Root is exhauſted; and therefore the Stem, which originally ſhot from the Heart muſt appear at the Side of the new Root, that has been formed from an Off-ſet. M. *De la Quintinye* has confeſſed, in his Treatiſe of Inſtructions, that his Removal of the Stem from its firſt Situation was a Myſtery that exceeded his Comprehenſion. Your Ladyſhip, therefore, is not the only Perſon to whom this Appearance has created ſome Perplexity, tho' the Fact be capable of a very natural Explication.

Chevalier. Be ſo good, Sir, as to inform me, which of theſe two Methods of multiplying Tulips you think the beſt?

Prior. The Tulips that ſpring from Seed are moſt adapted to afford you new Productions; but their Multiplication by Off-ſets is attended with two conſiderable Advantages; one of which is, that you are not left long in Expectation; the other, that you are always ſure to be furniſhed with Tulips of the ſame Species with thoſe that produced them; and if you are but careful to mark the Off-ſets, and then diſpoſe them in a Bed. with the ſame Regularity as you have placed them in your Regiſter, you may intermix them in a fine Taſte, and are able to range them with as much Propriety, as if you had already ſeen the Flower.

Chevalier. What may be the Uſe of the little moveable Tent which I have frequently obſerved in the Gardens of the Curious?

Counteſs. It is placed on a Bed of fine Tulips, and either raiſed or lowered in ſuch a Manner as may be moſt proper to ſhelter the Flowers from melted Snows, which ſully their Luſtre, as well as from great Rains, which are apt to cruſh them; and likewiſe from immoderate Heats, which ſhorten their vegetable Lives. The ſame Precaution is often uſeful to other Flowers, eſpecially the double Hyacinth, and the Ranunculus.

Chevalier. Will you oblige me ſo far, Sir, as to acquaint me with the Qualities of a fine Tulip?

The Qualities of a fine Tulip.

Prior. The green Tincture of a Tulip was once the Subject of various Rules; but at preſent, its Appearance is always thought pleaſing when the Tulip is fine in other Particulars.

Counteſs. This is the ſhorteſt Way of deciding its Merit.

Prior. The Stem is a kind of Pillar, that ſupports a Vaſe, and to which it ought to be duly proportioned. It is equally diſagreeable, if it either exceeds the proper Height, or has not ſufficiently attained it; or if it ſwells to an extreme Degree, or elſe appears too ſlender; and, perhaps, that Exceſs of Slenderneſs may be conſidered as its greateſt Defect.

A large Flower-Cup is always more agreeable than one of a moderate Size: The Tulip is not allowed the leaſt Merit when it happens to be extremely ſmall, but we diſregard it moſt when it is either flat or pointed. The Leaves ſhould never have an outward Slant downward, nor bend into a Dome within; but ought to be expanded with a regular and graceful Air. Inſtead of being formed into a Slope, or ſeparated toward the Bottom, they ſhould ſpread with an eaſy Freedom. Their Number muſt be always ſix, and each of them ought to be ſubſtantial and well tiſſued, that their Bloom may be the longer preſerved.

The Chives appear beſt with a brown Caſt, becauſe i adds Force to the lively Colours of the Flower; but it i not material with what Hue the Piſtil is tinged.

Counteſs. Let us now conſider the real Merit of a Tu lip; for, I muſt confeſs, that what I have heard from ſevera Perſons, who would be thought very curious in this Par ticular, ſeemed to me confuſed, that it really exceede my Comprehenſion. One would imagine the Beauty c Flowers to be a Circumſtance above the Capacity of com mon Minds; but if a moderate Share of plain Senſe b ſufficient to furniſh us with this Knowledge, I ſhall b extremely pleaſed. Let us enquire then into the Proper ties of a fine Tulip; but if it ſhould happen to be a Mat ter of Science and Study, I entirely renounce it, for m Part.

Prior. This Knowledge is comprehended in a few Par ticulars, which are very eaſy and natural. A Tulip pro duced by Seed has an unmixed and duſky Colour, i which it is generally very peculiar: One Claſs of them i Grey, another Red, and a third aſſumes the Blue of Vio lets; others are tinctured like Cinnamon, Purple, Muſk and Gridelin; but we eſteem thoſe the moſt which hav the leaſt Similitude to Red. There are ſome, however, i this Colour, clouded with all imaginable Variety, and the produce very fine Effects in Time. The uncompounde Colour is intermixed in a few Years with ſeveral whit or yellow Lines, which are often accompanied with black Streaks, and theſe are called the Stripes. The White i valued in Proportion as it reſembles Milk; but it ſucceeds better, and is more eſteemed in the *Netherlands* than among us. The yellow Stripe derives its Merit from the Perfection of its lively golden Dye, and thrives better in *France* and *Italy* than the White.

The Colours in a Picture are blended in the greateſt Perfection, when they ſoften into each other by inſenſible Diminutions; but they muſt always have a contrary Effect in a Tulip. The Stripe, inſtead of being imbibed by the Colour, ſhould intercept it in an elegant manner, and ought to penetrate the Leaf, to render it more radiant.

Counteſs. All this I can eaſily comprehend.

Prior. The Stripe is much more amiable, and better diſtinguiſhed, when it is accompanied with black Streaks, that make it riſe more ſenſibly from the Colour.

Counteſs. Here are then three Qualities entirely different from each other; the principal Tincture of the Flower, which you only call the Colour; the white or yellow Streaks that divide it, and which you diſtinguiſh by the Name of Stripes; and, laſtly, the black Lines that heighten the Appearance of the Stripe.

Prior. Theſe are the whole Appendage of a Tulip, and their Arrangement is capable of producing an agreeable Variety. The Stripes ſometimes diſappear towards the Middle of the Leaf, and become viſible again, with their black Lines near the Border. Some Perſons are pleaſed to call this Diſpoſition *the gay Dreſs.* The Stripe frequently traverſes the Leaf in large Breadths with black Lines, ſome of which ſeparate it from the Colour, in a curious Manner; others, inſtead of edging the Stripe, paſs through it from one End to the other.

Counteſs. The Tulips in this Bed preſent me with all the Particulars you have deſcribed.

Prior. Theſe Stripes, whether yellow or white, are frequently very broad; they are likewiſe as often narrow, and very much reſemble a fine Piece of Embroidery. There are ſome Tulips whoſe predominant Colour is much more extenſive than the Stripes; and there are others whoſe Stripes drink up the greateſt Part of the Colour, a ſmall Fringe of which is only viſible, toward the Edge of the Flower.

A Number of Obſervations were formerly made on the Ground of Flowers. This Name is given to the ſmall Flanks tinged with Grey, or a Violet Blue, and which are viſible at the Bottom of the Flower, where they ſeem to form a little Star round the Foot of the Piſtil. The fineſt Tulip was entirely diſregarded, when the Stripes encroached ever ſo little on this Ground: But Experience has convinced all true Judges, that theſe little Niceties, which were once thought ſo requiſite, are altogether immaterial. Every Perſon favoured ſome particular Mode, and diſliked the Flower and Guſto of others. But what Prerogative have the People of *Flanders* to reform our Taſte? And what Right have we to condemn theirs?

Counteſs The Standard of Taſte is not only varied with reſpect to Nations, but prevails as little in different Gardens. Inſtead therefore of all theſe arbitrary Rules, which only tend to impoveriſh the Minds of thoſe who obſerve them, is it poſſible to have the Knowledge of Tulips reduced into a ſhort, as well as an eaſy and intelligible Method?

A Rule for judging of Tulips.

Prior. I am far from preſcribing any particular Method to others; but my Manner of Thinking is this: Wherever a Taſte for amiable Nature prevails over the Jargon of Rules, I believe it will be always cuſtomary to value a Tulip, whoſe Stripes and Colour are very radiant, well contraſted and ſet off with Lines of a gloſſy Black, in what Manner ſoever Nature may have diſtributed theſe Intermixtures.

The Ranunculus.

Counteſs. The Cultivation of Tulips has always been the Count's Amuſement, rather than mine; for they require more Attention than I can well afford them. But the Flower which I love to raiſe and multiply, as much as poſſible, is the Ranunculus.

Chevalier. Here are ſeveral Beds of them; but I am unable to judge which of them moſt deſerves my Attention; they are all ſo remarkable for their Luſtre and Variety.

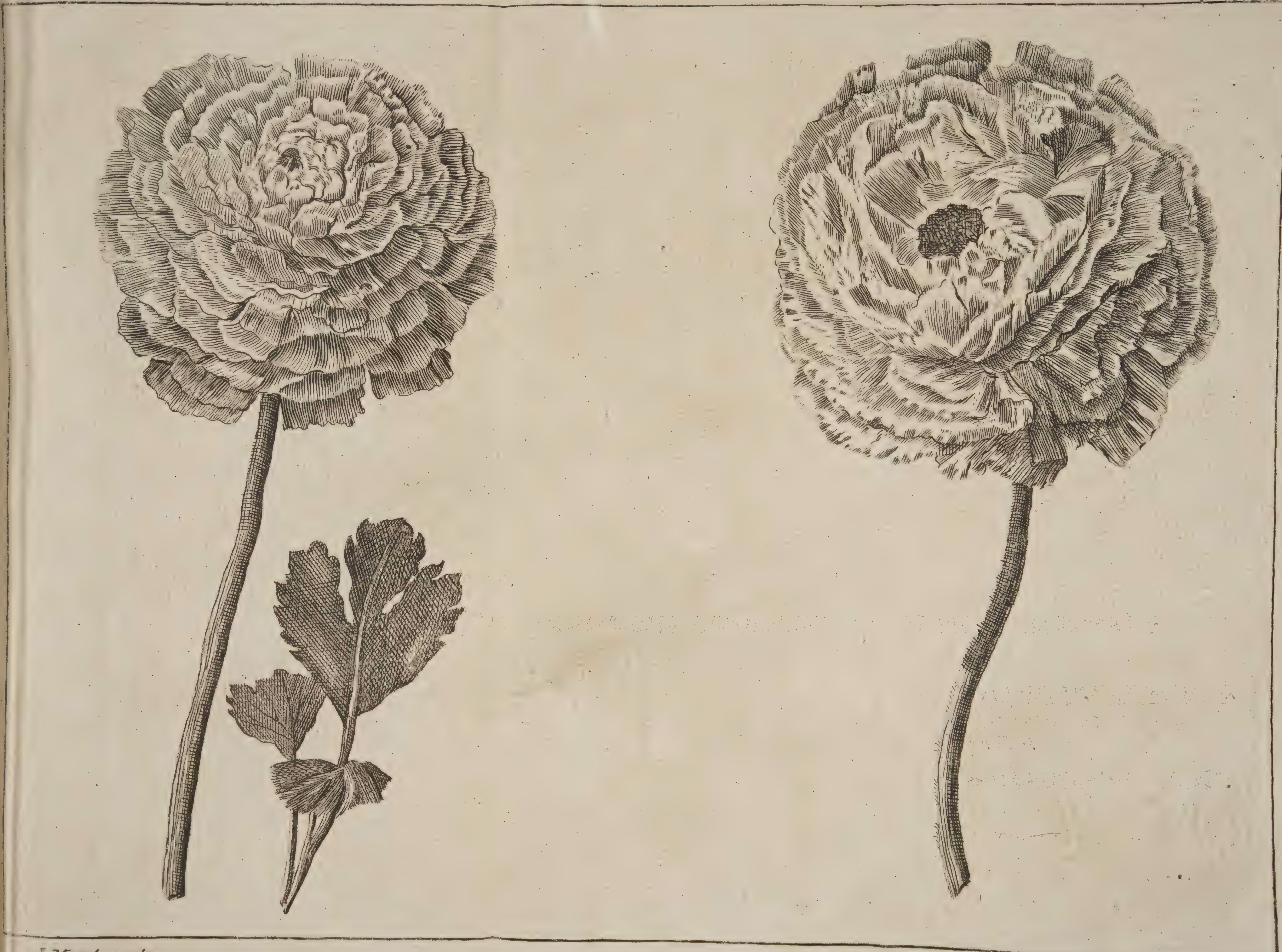
Counteſs. I give the Preference to this Flower, becauſe it degenerates leſs than the Anemone, and the Beauty of its Colours almoſt equals thoſe of the Tulip; but it much exceeds in the Number of its Species.

Cheval. Which of them does your Ladyſhip eſteem moſt?

Counteſs. The Red is counted the leaſt valuable, becauſe it is extremely common; and yet it affords a fine Mixture with thoſe that are double. But as beautiful as theſe laſt may be, the ſemi-double are in much greater Eſtimation at preſent, and are every where ranked in the firſt Claſs. Theſe before us are a Growth of them: They have but a moderate Quantity of Leaves, as you may obſerve, and they are a Medium in this Reſpect, between the large double Flowers,

whoſe

Plate 6 Vol. II page 48



I. Mynde sculp.

The ſemi-double Ranunculus

whoſe Leaves are very numerous and thick ſet, and the ſingle ones, which have hardly any.

Chevalier. I am at a Loſs to conceive why thoſe that are double ſhould not be preferred to the others. Perhaps the ſemi-double owe their Merit to the Turn of the Mode that now prevails.

Counteſs. This Preference is not a tranſient Taſte, and the Effect of mere Caprice; but is founded on the Variety of Colours, which has the Air of a Prodigy. A ſingle Bed of the ſemi-double Flowers is at once an Aſſemblage of the pale, the citron, and the golden Yellows; the ſhining White, the mellow Red, and the Tincture of the Peach Bloſſom: You may there behold a Variety of fine Grounds, ſuch as the white intermixed with red Stripes elegantly diſtinguiſhed; the yellow ſpeckled with red or ſable Rays: Some of theſe Flowers are roſy without, and white within. You will ſee a different Claſs, tinged with ſhammey, and border'd with red, and others growing with a crimſon Ground.—— But their Catalogue is endleſs, and new Species are preſented to our View every Year. If the Love of Change be ever llowable, we may venture to admire it in Flowers; and f we can pleaſe ourſelves in changing what we love, we muſt certainly love the Ranunculus.

Prior. It is qualified to regale all Taſtes. The Root of fine Ranunculus yearly revives and perpetuates the ſame Lineaments of Beauty; which is a pleaſing Circumſtance o thoſe who are conſtant in their Friendſhips. The Seed of he ſame Flower produces a new one, from Year to Year, hich is a Quality that muſt be agreeable to thoſe who de- ght in Change, and they will here find a ſufficient Variety o employ their Choice. I was acquainted with a Set of loriſts, who began to dignify each new Ranunculus with e Name of ſome Perſon of diſtinguiſhed Merit. One was alled King *Staniſlaus*; and another the *Czarina*: A hird was Marſhal *Villars*, and a fourth Prince *Eugene*: his was the Duke of *Berwick*, and that the Marquis of *ſfield*. The Ranunculus that diſcloſed a Range of jetty ines, or a radiant Ground, was named the *Rouſſeau*; but r what Reaſon I am uncertain. Another that unfolded roſy Bloom without, and diſcovered an unſullied White- eſs within was called the *Rollin*. One whoſe Speckles ere ſo multiplied and thick-ſet, that they rendered the

Ground on which they roſe inviſible, was the *De La Motte.* Another, whoſe rich Leaves were regularly embelliſhed, in their Extremity, with a beautiful Stripe, was the *Fontenelle.* But our Floriſts ſoon diſcontinued this Practice; for when they compared the Number of Great Men, with the Diverſity of theſe Flowers that were daily making their Appearance, they grew ſenſible that the Generality of them would be in Danger of continuing nameleſs.

Counteſs. The ſemi-double Ranunculus, with all the Advantages of an endleſs Variety that yearly changes the Decorations of your Parterre, has another Quality, of which the double Flowers are deſtitute: I mean, its Fertility in producing Seed; whereas the others are entirely unfruitful.

Chevalier. Is this Defect peculiar to the double Ranunculus?

Counteſs. The Generality of double Flowers in every Claſs are unproductive of Seed. They diſcover indeed the faint Sketches of a Piſtil and a few Chives; but the Profuſion of Leaves, with which they are covered, uſually prevents them from ripening into Fertility: But when theſe double Flowers, for want of proper Culture, or from any other Circumſtance, begin to be leſs luxuriant in their Leaves; the Heart of the Flower is diſengaged from the Part where it was fixed; and as it then enjoys all the Impreſſions of Warmth and Air, it produces Seed like other Plants.

Chevalier. Is it known from whence this Flower originally came?

The Hiſtory of the Ranunculus.

Prior. It is generally ſuppoſed to have been brought to us from *Tripoli* in *Syria*, ſeveral Ages ago; and poſſibly in the Time of the Cruſades. But it was a very conſiderable Period before any but the double Flowers were cultivated. About thirty Years ſince ſome Seeds of the ſemi-double Flowers were brought to us from *Conſtantinople*, where the fine Ranunculus is very common. Monſieur *Valnay*, Comptroller of the Houſhold, was one of the firſt who form'd a Bed of theſe beautiful ſemi-double Flowers; but what the Curious admired in the Years 1705 and 1706, in his Garden in the *Fauxbourgh St. Germain*, would hardly be ſuffered now, in an ordinary Bed of the ſecond Claſs; ſuch Diſcoveries and Variety have we acquired from the Seed of the ſemi-double Flowers.

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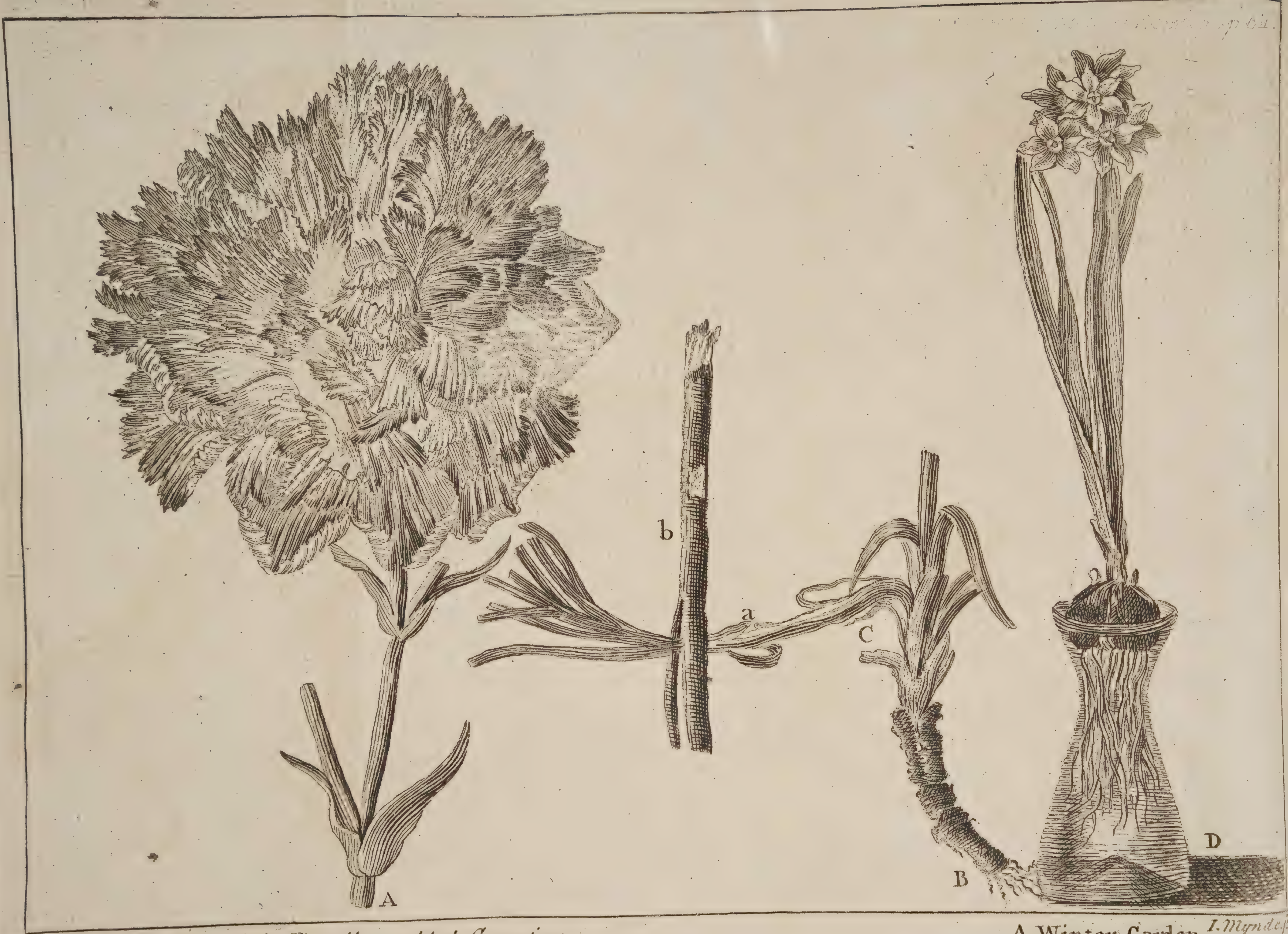

A. Winter Garden. I. Mynde ſ

A. *The Stem of the Pignette speckled Carnation.*
B. *The Root.*
C. *A Layer.* a. *A Gash made by a Penknife in that part of the Layer which must be bent into the Earth to take root*
b. *A little forked stick to keep the Layer down in the Earth*

D. *The Leſser Oriental Narciſsus*

Chevalier. Are many Preparations neceſſary to their Culture?

The Culture of a Ranunculus.

Prior. This charming Flower, in order to preſent you with the moſt lovely Enamel that ever glow'd upon a ſingle Species, requires nothing more than to be planted in a rich Earth, with a ſmall Intermixture of Aſhes, or rotten Wood; and to be ſhelter'd from Humidity and ſevere Colds.

The Carnation.

Chevalier. Her Ladyſhip promiſed to entertain us with the manner of cultivating the Carnation, but did not promiſe to ſhew us one: And yet I obſerve ſeveral that are very amiable. This Sight, in my Opinion, is very extraordinary for the Beginning of *May*.

Counteſs. There is one Method of tending them, which will cauſe them to blow each Month in the Year, Winter not excepted, and even in a Green-houſe.

Chevalier. It muſt then be the compleateſt of all Flowers, ſince it wears the fineſt Array of Colours, is graced with the moſt delicate Shape; diſpenſes an aromatic Fragrance around it, and is attainable in every Seaſon of the Year: But there are ſeveral Species of this Flower, and I ſhould be glad to know which of them is moſt eſteemed.

The Qualities of a fine Carnation.

Prior. The Carnation, like the Tulip, has its Stripes formed in the ſtrongeſt Oppoſition to the predominant Colour, into which they are never ſoften'd. But they muſt likewiſe be extended, without any Interruption, from the Bottom of their Leaves to their other Extremity. The large ones are much finer than the ſmall, as they exceed them in the Number of their Leaves by one half, or four at leaſt. The noble Spread of a Carnation forms a Circumference of nine or ten Inches, with a Diameter of about three. They are greatly prized when they have a Multitude of Leaves, becauſe they form a more elegant Figure. It is much more graceful when the Head is beautifully rounded like a Tuft, than when it is only flat. Too great a Number of Spots would create a Confuſion in the Flower; and were it too much indented it would ſeem jagged. When the extremities of the Leaves, inſtead of being properly arched, are lengthened into a Point, they make a wretched Appearance; and this is the greateſt Defect it can poſſibly ſuſtain.

As to the Method of raiſing and improving this Flower, no one underſtands it better than her Ladyſhip.

Counteſs. Carnations may be propagated either from Seeds or Layers. The Seed diverſifies the Species of the Flower, and the Layer perpetuates thoſe that are moſt amiable.

The Layer. The Layer ſhould be planted in the Month of *July*, and not ſooner, leſt the Flower of the Stem ſhould be injured.

Chevalier. This is an Operation of which I have not the leaſt Knowledge.

Counteſs. Nothing more is neceſſary than to lay a Shoot in the Earth, leaving the Extremity above the Surface; but the Tops of the Leaves muſt be firſt clipp'd, and a Gaſh open'd with a Penknife, half Way into the Joint that is intended to be ſunk in the Ground; and then this little Branch muſt be kept down in its proper Place with forked Sticks.

When it has taken Root, as it will in a ſhort Time, it muſt be cut off from the Mother-Plant; from whence it no longer ought to derive its Nouriſhment, becauſe it is then Time for it to ſupport itſelf.

When the Stem riſes ſo high, as renders it impoſſible to bend the Shoot into the Soil, we cauſe it to paſs through a Tin Funnel fill'd with Earth, and ſupported by a Wooden Fork. When the Branch has ſhot forth ſome little Roots, in the Funnel, it is cut off in its lower Part, in order to be placed in a Pot.

Prior. We may cauſe the Layers to ſhoot, by diſpoſing them in Pots, in a Bed of moderate Warmth, and affording them an open Sun-ſhine, and frequent Waterings, which are the two great Promoters of Vegetation.

Counteſs. You ſeemed a little ſurprized, to ſee large Carnations in ſo early a Seaſon; but this Effect is produced by the manner of laying the Flowers, which may be always managed to Advantage, from *July* to the End of *September*. There are ſome Kinds, indeed, that naturally blow ſooner, and others later; and we may eaſily obtain a good Number of both; but the ſureſt Method of ſecuring a Bloom of Carnations, for the greateſt Part of the Year, is to have Layers three of the Summer Months, and they will flouriſh agreeably to the Time of their Procurement, either ſooner or later. Some will unfold their Beauties in the Spring, others in the Summer, and a third Sort will only appear in Autumn. But thoſe, whoſe firſt Sproutings are clipt, will preſent us with their Flowers in the Depth of Winter itſelf.

Another method of multiplying Carnations, and producing thoſe that are beautiful in a ſhort Time, is to ſeparate the Layers from the Stems of thoſe Kinds that pleaſe us. The Layers frequently contain others, which are ſubordinate to them; and we ſtrengthen the Parent-Plant, by relieving her from ſo numerous an Off-ſpring. The principal Carnation, no longer ſharing the Sap with ſo many Competitors, gains greater Vigour, and aſſumes a more agreeable Appearance; while the Layers are likewiſe ſtrengthened the ſooner, and produce Flowers of equal Beauty, in a ſhorter Space of Time.

But when we ſeparate the Layers from the main Stem, with a ſlender Root to each, we muſt be careful not to injure them, by ſuch Wounds as may be deſtructive to the Parent and her tender Progeny. In all Operations there is an Art and Dexterity of Management, that reſults from Practice, and can never be acquired by the Knowledge of a mere Set of Rules.

Prior. Some curious Perſons have attempted to multiply the Carnation by Stock-Grafting; and they aſſure us, the Experiment has ſucceeded to their Wiſh. We may, hereafter, give the Chevalier a proper Idea of grafting in this manner.

New Improvements, *&c.* Vol. I.

Counteſs. Were this Practice reduced to any Certainty, with reſpect to Carnations, nothing could be more commodious; for we might ſoon cauſe the fineſt Claſſes of this Flower to ſpring from the moſt common Stem of a vigorous Growth. We might even carry the Improvement to a greater Height, and propagate different Kinds of Carnations all upon the ſame Stem; by which Means we could enrich any particular Vaſe with a natural Cluſter of the largeſt Flowers varied in the moſt agreeable manner. I am determined to make the Experiment, ſince the Riſk is inconſiderable; but I fear it is only a Flight of amiable Imagination.

Chevalier. Does the Carnation require any peculiar Compoſition of Soil?

Prior. It thrives to Admiration in *Flanders*, where the Earth is rich and oozy; but droops in *Provence*, and along our Southern Coaſts, that lie in a ſcorching Climate, and whoſe Soil is extremely light. We may therefore judge, that it requires a black, marſhy and ſubſtantial Earth, with a ſmall intermixture of Horſe and Cow-dung to correct each other, and to prevent the Soil from being too compact.

Counteſs. When Winter approaches, we diſpoſe theſe Flowers in a Green Houſe, where they faintly retain a kind of reluctant Life. It will be proper, however, to air and water them in mild Seaſons, and after the enſuing *Lent* we may afford them all the Air we think requiſite, but muſt be careful, at the ſame time, to preſerve them from the Injuries to which they are obnoxious.

When the Carnation intended for the Theatre of Flowers begins to be unfolded, as it is only placed in that Situation to delight the View, great Care is uſually taken to adjuſt its Array, and prevent the Diſorders to which it is ſometimes liable. It is apt to burſt the Cup that contains its Leaves, and conſequently the Flower will run out on one Side; to prevent which it will be proper to make equal Inciſions, with a Needle on each Side, that the Petals may expand and fall in a ſwelling Round. It may likewiſe be ſuſtained with a circular Collar of ſtrong Paper, a Band of Thread, or a Ring of Willow-Bark, fixed about the third of the Height of the Spindle, with whoſe Colour it correſponds, and is therefore rendered imperceptible. It will likewiſe be neceſſary, at that Seaſon, to water the Carnations every Day.

Theſe are the five ſorts of Flowers, which are the principal Amuſement of thoſe who are curious in Productions of this Nature: However they are not diſregardful of the others, but raiſe ſuch a Number as is proportionable to the Plot of Ground they poſſeſs. The Hepatica's alone, when thoſe that are blue are properly blended with the red and white, are ſufficient to afford a Month's Embelliſhment to the Verge of a Parterre, or a Court, when the Snows of *February* are melted. They may be intermixed with Cowſlips that ſpring in our Meadows, and whoſe Culture affords great Variety, and may be rendered very ornamental. The Narciſſus, the double Violet, the double Hyacinth, the double and ſingle Jonquils, the red and white Snow-bread, and even Daiſies, when they are well choſen, produce agreeable Effects, either when they are ranged into their ſeparate Families, or intermixed in the ſame Bed, every one declares in Favour of Julians, which I would call the Balm of our Gardens; and they are capable of being multiplied with the greateſt Facility.

Chevalier. I am unacquainted with the Method of their Cultivation.

Counteſs. When the fine Cluſters of the Julian have finiſhed their Bloom, it is uſual to cut and ſhorten the Stems and Branches by which thoſe Cluſters were ſupported: They are then fixed in the Earth a-new, without any other Preparation; and all theſe Branches will afford you as many new Stems, provided you plant them in a rich Soil, renewed from Year to Year, and without any Intermixture of Horſe-Dung. But if this Method of Cultivation be neglected, they will ſoon degenerate, as is commonly ſeen at *Paris*, where this Flower ſeldom appears in its proper Beauty.

Chevalier. I ſhould think the Stock-Gilliflowers merit a more peculiar Care, becauſe we enjoy them for a longer Seaſon. The Yellow-double, which is exquiſitely fragrant, preſents us with all the Luſtre of Gold. Thoſe that are either ſtriped or tinged with White, Red, or a Violet-Blue, riſe with ſtately Heads, and diffuſe a moſt agreeable Odour.

The Stock-Gilliflowers.

Counteſs. I am not for blaming the Curioſity of thoſe Perſons who cultivate foreign Plants; but neither *Peru* nor the *Indies* can regale us with any Productions that exceed a fine Stock-Gilliflower; and I believe it is ſuch an Object, as even the *Indians* themſelves would behold with Admiration and Envy.

Prior. We have not taken any Notice of the Claſs of Poppies, or of double Corn-Roſes. Theſe Flowers are only multiplied by their Seeds, which yearly produce ſuch Beauties as are capable of delighting even thoſe who are fondeſt of Novelty.

Counteſs. I am uncertain whether they ought to be conſidered as a Model, or a Reproach to Painters and Embroiderers.

Chevalier. There is one Flower, which, in my Opinion, diſplays more Luſtre than any we have yet mentioned,

and

and is the fineſt Embelliſhment of a large Garden, I mean the Lily.

Prior. Wiſdom itſelf has uttered its Panegyric, and preferred it to all the Purple and Splendor of the moſt magnificent Kings.

Chevalier, Can you obſerve, Sir, any Reſemblance between this Flower and the Lilies in the Arms of *France?*

Prior. The upper part of a Leaf of this Flower ſeen in its full Width, and the two adjoining Leaves, viewed in profile, ſeem to have ſome faint Similitude with the Top of a Flower de Luce, but this Similitude muſt be aided by ſome Hiſtorical Conjecture.

Counteſs. We are apt to loſe the View of Nature, the Moment we quit the Garden. Why is the Name of a Lily given to a Figure that reſembles it ſo little?

Prior. It is very probable that theſe three ſmall Leaves conſtituted the original Flower de Luce, or that kind of Flouriſh which uſually appears in the Crowns, and frequently riſes on the Extremity of the Sceptres, in the Monuments of the ſecond Race of our Kings. *Lewis* the Seventh, ſirnamed the Young, and who was one of the Princes engaged in the ſecond Cruſade in the twelfth Century, diſtinguiſhed himſelf, as was cuſtomary at that Time, by a particular Blazon, and formed his Coat of Arms with this Flouriſh; the Supporters were a Repetition of the ſame Flower in little: And as the People generally contracted the Name of *Lewis*, into that of *Luce*, it is very natural to believe that this Flouriſh came by theſe Means to be diſtinguiſhed by the Name of the Flower *de Luce*.

Les Monumens de la Monarche Francoiſe de *D.* Barnard de Montfaucon, Tom. I. & II.

THE APPENDAGES TO A PARTERRE.

DIALOGUE IV.

The COUNT. *The* CHEVALIER.

Count. TO what Uſe, Sir, do you intend thoſe little Tiles, which you are ranging with ſo much Application?

Chevalier. Will your Lordſhip be ſo good as to read the Inſcriptions on them?

Count. The Mountain-Lily, the *Calcedonian* Iris, Gold-Buttons, Fox-Gloves, Florets of Knap-Weed.——I find, Sir, you have been making a Catalogue of Flowers?

Chevalier. I daily hear the Names of ſeveral that are Strangers to me, and frequently ſee others that I knew by Sight, but am unacquainted with their Names. I have therefore fixed a little Ticket to the Stem of each Plant, and I call them by their Names as they preſent themſelves to my View when I am walking alone; but whenever my

Memory happens to fail me, I immediately refer myſelf to the Inſcription, till I learn to diſtinguiſh them by their Leaves.

Count. You muſt compile a Book then of all my Garden ; ſince the Precaution you have already taken will be equally neceſſary for a Multitude of other Plants that adorn this Spot of Ground ; but I will endeavour to render them familiar to you. A Parterre is not ſufficient to complete a Garden, and it requires a Variety of Appendages ; ſuch as flowering Shrubs, green Alleys, verdant Arbours, with an Intermixture of Paliſades and Groves.

The firſt Appendage to a Parterre is a Growth of the large flowering Shrubs, together with thoſe of other Species, and to theſe may be added a Variety of foreign Plants. As the Number of flowering Shrubs is not very conſiderable, their Deficiency may be ſupplied by large annual Plants.

Chevalier. I ſuppoſe your Lordſhip means thoſe whoſe Stems are entirely decayed at the Year's End, or a little after.

Large annual Plants.

Count. The very ſame, Sir, and we always make Choice of ſuch as riſe in fine Pyramids, whoſe luxuriant Leaves are crowned with rich Cluſters of Flowers. Theſe Qualities render them proper to cover a large Vaſe, and beautify the extended Plots: Such for Inſtance, are the Julians, Stock-Gilliflowers, Lilies, Pyramidals, Indian-Pinks, Amaranths, Stork-Bills, and a Variety of others, with which you are ſufficiently acquainted. The Belvederes are likewiſe as ſerviceable, though they are unproductive of Flowers.

Flowering Shrubs.

The flowering Shrubs are the common, as well as the *Perſian* Lilac ; the Orange, Citron, and Pomegranate Trees, the Jeſſamine, and Roſe Plants, with ſeveral ſorts of Laurel.

Chevalier. I know a Number of Gentlemen, who deſire no other Parterre, than a few Beds garniſhed with theſe Trees.

Count. Theſe ſtately Plants are more ornamental to a Garden, than the Generality of thoſe that are eſteemed by curious Floriſts, and which Nature has painted in Miniature,

niature, becauſe they are only intended for a near View: Whereas the others are drawn with larger Lineaments, and riſe in a more ſimple Form. They are likewiſe multiplied with Profuſion on the ſame Stem, and have uſually but one Colour, which with the branching Verdure that ſuſtains them, gives them an amiable Appearance, even in a diſtant Proſpect, and renders them a noble Decoration to a ſpacious Plot.

Chevalier. I doubt the pleaſing Array of theſe Plants is too tranſient: But we are not ſo much limited in the Cultivation of Flowers, becauſe we may enjoy them in regular Succeſſions.

Count. We may likewiſe be accommodated with Flowering Trees, for the greateſt Part of the Year, and with a Number of agreeable Variations, when the Laurus Tinus has performed its Part, in the laſt Months of the Winter Seaſon, and even to the Return of Spring; it quits the Scene, and is ſucceeded by the Lilacs, which we intermix, by diſpoſing Boxes of the white and blue Cluſters, in alternate Ranges; and you may obſerve their Effect through the Length of this Terraſs. Theſe are the immediate Predeceſſors of the *Gelder-Roſe*, the *Honey-Suckle*, the common Jeſſamin riſing on Stems, or rounded by Hoops, into the Form of a Vaſe; the *Spaniſh* Broom, and the *Perſian* Lilacs, with the yellow Jeſſamines, and thoſe of *India*, *Arabia*, and *Catalonia*, which continue flowery for ſeveral Months, notwithſtanding the daily Tribute they tender to each new Viſitor who approaches them. The ſame Seaſon delights us with the balmy Fragrance of the Orange-Flower, and the rich Purple of the Pomegranate. We ſhall afterwards be regaled through the whole Autumn, with a Combination of the ſofteſt Colours, reſulting from the blended white and red of the Laurel Roſe.

We may intermix the flowering Trees with a Variety of Shrubs that are in great Eſteem either for their unfading Verdure, or the refreſhing Odours they diſpenſe. Of this Claſs are the Myrtle, the Roſemary, the Orach, with the Trees of *Saint Lucia*[*], Yew, Cypreſs, Cherry-Laurels, and an endleſs Diverſity of other Species. The Holly-

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[*] A Species of Cherry-Tree, of a pleaſing Scent, and a very agreeable Flower.

Tree itſelf, as jagged as it appears, is render'd worthy of a Situation in our Gardens, by its undecaying Green, and the admirable Vermilion of its Berries, which delight the View in the Depth of Winter.

Chevalier. Your Lordſhip has not taken any Notice of Roſe-Trees, and yet they make a very amiable Figure in the Garden.

Count. I am far from diſregarding them, and indeed they are as valuable as all the Variety of Flowery Shrubs. Thoſe we procure from foreign Parts, at a great Expence, have no real Superiority, and perhaps are not comparable to the Beauties of a regular Succeſſion of our native Roſe-Trees, when they are cultivated in a proper manner. There are more than fifteen Species of Roſes, as well the ſingle as the double; the white, the yellow, the crimſon and the ſtriped: And beſides the Facility of diverſifying their Colours, by the Intermixture of the ſeveral Kinds; we may obtain this Variety on the ſame Stem, and produce a Bloom of five or ſix ſorts of large Roſes, entirely different from each other, by the Operation of Grafting.

We may raiſe them, if we are ſo diſpoſed, by lopping off the Shoots that ſprout from the Stem; but the moſt important Circumſtance in their Culture is to allow ſome of the Buds to ſpring, while we retrench the reſt, and to moderate the Growth of the Trees, ſome more and others leſs, by which means the Buds will unfold themſelves in Succeſſion; ſome at the cloſe of Summer, others in Autumn, and the reſt in the Winter Seaſon itſelf. Nothing can be more eaſy and natural than the Method of prolonging this lovely Flower.

Chevalier. I begin to be ſenſible, more than ever, that the moſt common things are in reality the moſt amiable; and that we are under no Neceſſity of being anxious after ſcarce and foreign Productions, for the Gratification of our Curioſity.

Count. It will be ſufficient if we make an orderly Diſpoſition of what Nature has placed around us; and this Truth will be rendered ſtill more evident to you, by the other Embelliſhments of our Gardens. Let us only allow all the Luxuriance of Growth to the Linden, the Hazel, the White-Thorn, the Fruit-Trees, and every other Plant that riſes before us, and we ſhall ſoon be lodged like the Lions and Tygers of the Wilderneſs. We ſhall ſee ourſelves ſurrounded with thorny Buſhes and glooming Thickets. But, on the other hand, let us beſtow the leaſt Arrangement on the Products of Nature, and our Habitations will quickly be changed to a verdant Paradiſe.

Common Reaſon inclines us to clear the Front of our Apartments from whatever would darken them, or intercept the View; and when we open a Plot of Ground of a reaſonable Extent, it is but natural to diſpoſe it in ſuch a manner as may amuſe the Sight with ſome agreeable Object. To this Intention we may refer the Origin of Parterres, and the eaſy Delicacy of the Ornaments that compoſe them. But I muſt likewiſe obſerve to you, that a Parterre, which is only an open Level, ought to be ſet off by Objects of a different Caſt, that mutually contraſt one another, and riſe on each Side, either to terminate or diverſify the View, or to furniſh us with ſome other Accommodations.

The Diſpoſition of theſe Appendages requires a more accurate Taſte than the Parterre itſelf; and I will now repreſent to you, in a few Words, the Deſign of the ſeveral Pieces, together with the Plants that compoſe them, and the proper Method of ranging the Whole. We will begin with the Alleys.

Alleys.

Alleys are either planted or open. Thoſe of the latter Kind are extended in a level Surface, edged with Borders of Box, and covered either with Sand or Turf, formed into an agreeable Walk, round the Parterre.

Thoſe of the former Sort are either bordered with large Trees, or with Plants, diſpoſed in Boxes. Some are covered, to render the Enjoyment of the freſh Air more commodious; others are entirely open at the Top. They are ſometimes calculated to improve the Proſpect of the Country; and this, if poſſible, ought to be the Effect of the Alley that fronts the Building, and correſponds with the Middle of the Parterre; ſome are qualified to direct the Eye to a pleaſing Object; as you may obſerve in this before us,

Chevalier. The two Towers of the Monaſtery, which form the Point of View, ſeem as if they were built with an Intention to embelliſh it.

Count. The main Alley, which uſually opens at the end of the Parterre, is ſometimes accompanied with two Counter-Alleys that are leſs ſpacious. When that happens to be the Diſpoſition, the Alley in the middle is always compoſed of large Trees, whoſe Tops are cut even with each other, while their Trunks riſe in the open Air. The Counter-Alleys may be cloſed on the right and left, with two large Ranges of Palliſades or verdant Walls.

Chevalier. I obſerve that all the Trees in the two Alleys, which accompany your Lordſhip's Parterre. as well as in that which opens through the Wood fronting the Caſtle, are of the ſame Species.

Count. They are all broad-leaved Elms, and no other Trees are ſo complete and uniform in their Foliage.

Chevalier. Is not the Lime uſually choſen for fine Alleys?

Count. I muſt confeſs the *Indian* Lime is render'd very ornamental by its lively Green; together with the large Cluſters of its Flowers, and its amiable Head: It is likewiſe a Tree of a ſudden Growth; but then it is ſubject to the Depredations of a Caterpillar, that yearly deſtroys the greateſt Part of its Verdure in the midſt of Summer. I may add too, that it always ſoils the Walks, and drops its ſhaggy Pods, when it ſheds its Flowers at the Cloſe of Spring. It is likewiſe diveſted of its Fruit in Autumn, and reſigns all its Beauties at the Fall of the Leaf.

Chevalier. Theſe are ſufficient Reaſons for our diſregarding it: But is its Place only to be ſupplied by the Elm?

Count. Beſides the two Species of Elms we enjoy, the one with ſmall, and the other with expanded Leaves, we may plant our Alleys with the Plane, the Maple, and the Linden Trees: Some Perſons likewiſe chuſe the *Egyptian* Thorn.

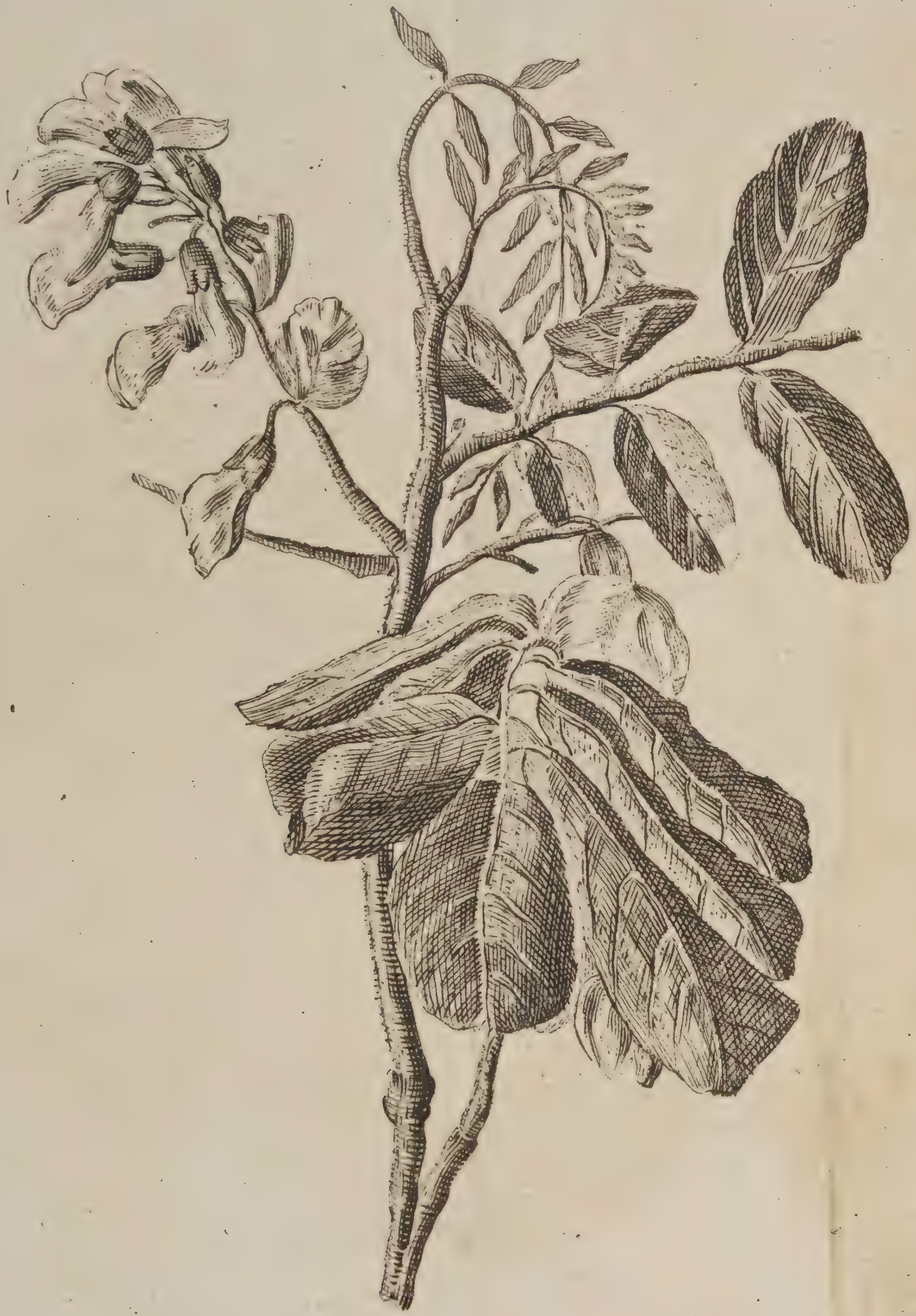
The *Egyptian* Thorn.

Chevalier. I am well acquainted both with this Plant and the Plane-Tree; and have often gathered Flowers of an admirable Fragrance from the former. The Plane has a ſpreading-Leaf ſhaped like a Star.

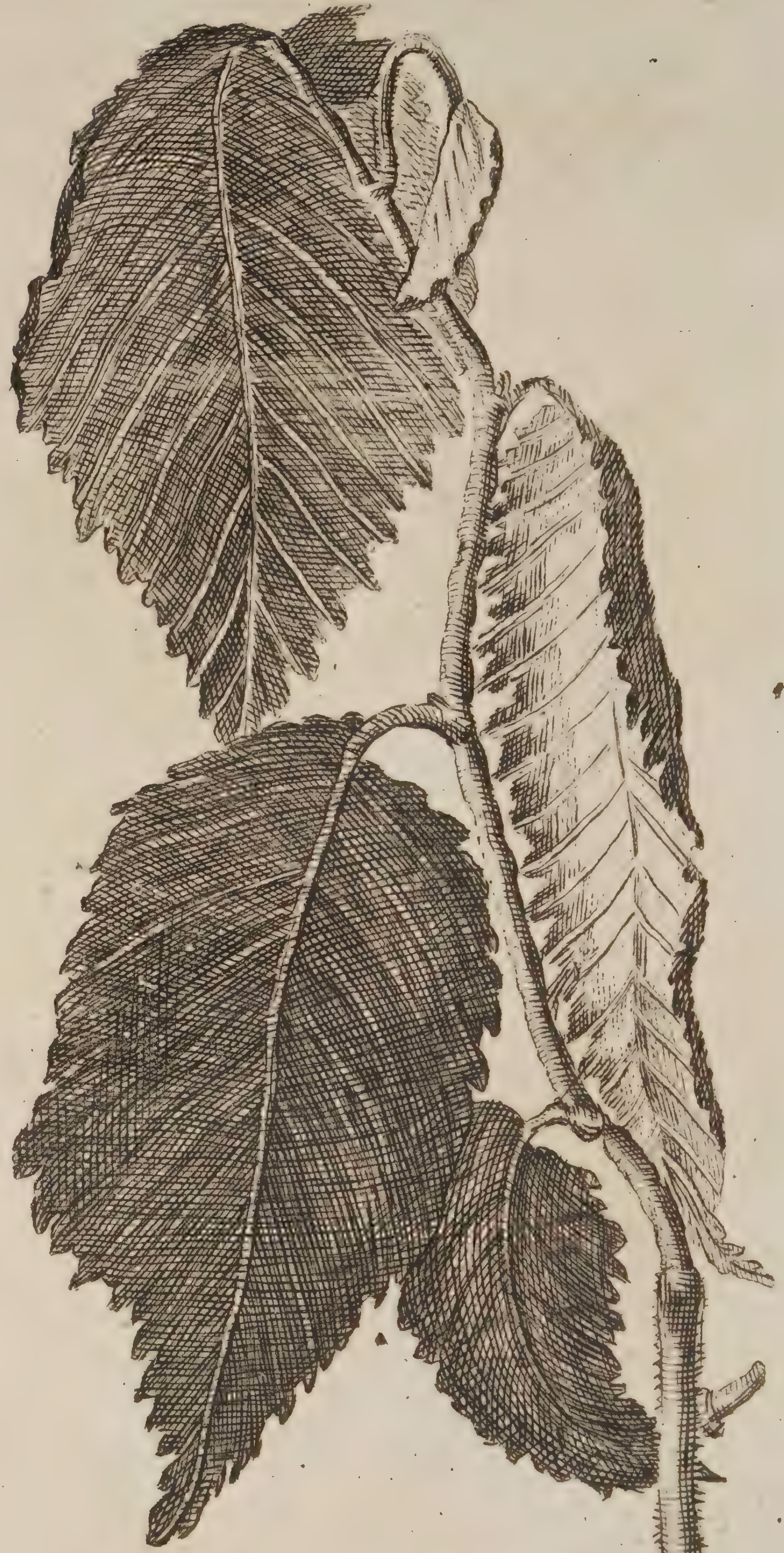
The Plane.

Count. The Fate of the Plane is greatly changed The *Greeks* and *Romans* prized it exceedingly for its grateful Shade, and were

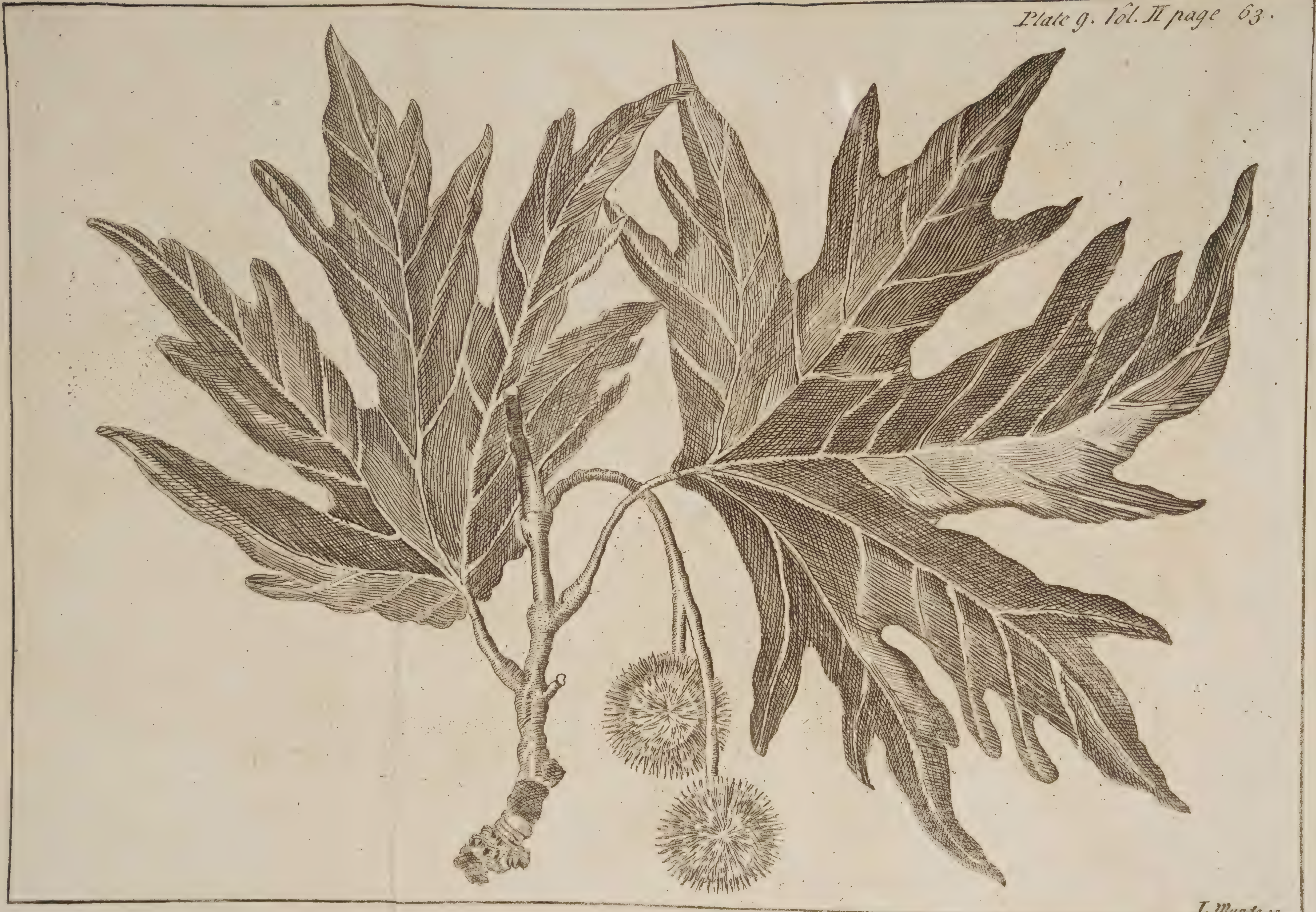
Plate 8 Vol. II page 63



The Indian Acacia



The broad leav'd Elm



The Plane Tree

were much delighted with enlarging its Head, and forming a ſpacious Dining Room in the Midſt of its Foliage. They planted it in their Gardens and the Avenues to their Country-Seats, as well as in every other Situation; and I ſuppoſe you have read *Horace*'s Complaints of their Partiality to this Tree.

* *Our pompous Piles will leave us now*
Few Acres for the foodful Plough;
Canals of Art are ſtretch'd around,
More ſpacious than the Lucrine Bound;
And unproductive Planes *invade*
The injur'd Elm's prolific Shade.

Chevalier. I remember them very well; and that Great Poet thought it ſtrange that the Plane Tree, which only affords an unfertile Shade, ſhould be propagated more than the Elm, which may be render'd advantageous and fruitful, by eſpouſing it with the Vine.

Count. The Plane is very little uſed, at preſent, in our common Gardens; and we give the Preference to the large Maple, whoſe Leaves have a great Reſemblance to thoſe of the Plane. We are ſtill better accommodated by the leſſer Maple, the Yoke-Elm, and the Linden in particular; becauſe it is not only a Tree of a ſpeedy Growth, but it aſſumes all Shapes with the greateſt Pliancy, and adapts itſelf to every Soil. We may likewiſe ornament the lower Part of this Tree with large Buſhes of Yew, or with Roſe Trees formed into Vaſes, or inverted Bells. The Linden Stocks, which riſe into the Air with round Heads, reſemble the long Rows of Orange-Trees in Boxes.

Chevalier. When theſe Vaſes are all covered with Roſes they muſt form an enchanting View, in an Alley where they are thus diſpoſed.

Count. We may make greater Improvements ſtill. As it is not uſual to accompany Parterres with Trees of lofty Stocks, unleſs the Gardens be very extenſive; we may either in the Middle, or on each Side of the large Alleys that border the Parterre, plant ſtraight Lines of Dwarf-Lindens, whoſe Stems muſt be contracted in their Aſcent, that their Sides may ſhoot out. Theſe Plants may be cut into the Form of ſquare Boxes, and we uſually place in the Centre of thoſe verdant Vaſes a large Panier of tufted Flowers, or the blooming Head of a Roſe-Tree.

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* Jam pàuca aratro jugera regiæ
Moles relinquent: undique latius
Extenta viſentur Lucrino
Stagna Lacu: *Platanuſque cœlebs*
Evincit Ulmos. Carm. l. ii. Od. 15.

Chevalier. I ſee this Diſpoſition has been obſerved in the two Wings of the grand Parterre. The Proſpect is not limited by theſe pleaſing Alleys, and they diffuſe an Air and Magnificence through the whole Garden.

Count. This is a Pleaſure that did not coſt me a Length of Time to procure its Enjoyment, and it likewiſe ſaved me the Expence of rich Vaſes, and timorous foreign Plants; which we can only venture to expoſe to the Air in fine Weather. I am for thoſe Productions that ſpring in our Climate, and which we may ſhelter from the ſevereſt Froſts, by a ſlight Covering of Straw.

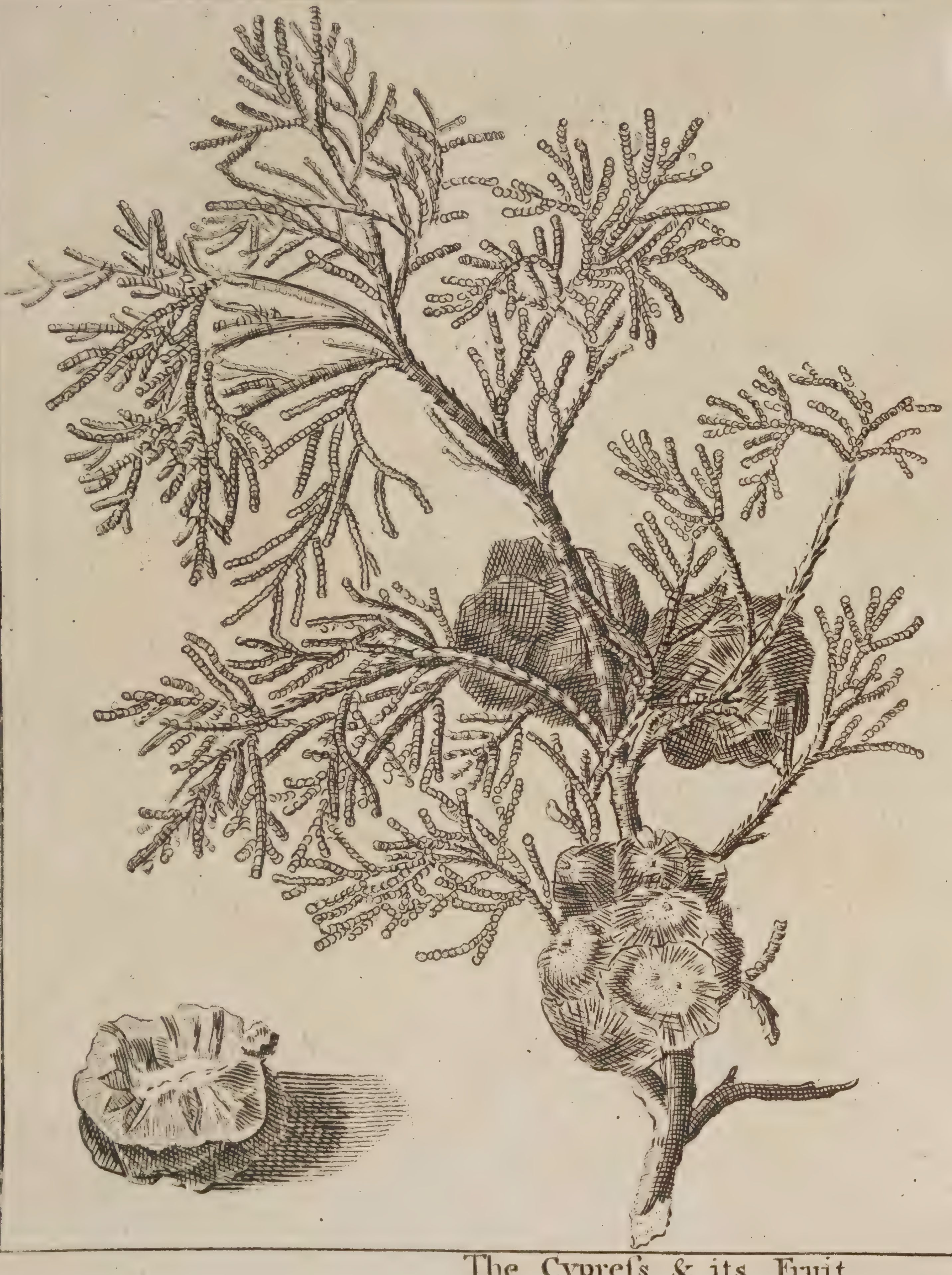
Chevalier. I admire the light and elegant Form of thoſe Bowers, that ſo agreeably terminate the View on each Side.

Count. Bowers and verdant Halls are capable of various Embelliſhments; and we intermix them with the Honey-Suckle, the Jeſſamin, the Yoke-Elm, the Linden, and even the Ever-Greens. Theſe pleaſing Retreats had formerly a melancholy maſſive Air. The Stems of the Plants that formed them were frequently bare, and their Sides had a withered Aſpect, becauſe their Vegetation was checked by an injudicious Carefulneſs to cover them in every Part. The preſent Taſte is in Favour of Bowery-Works uncovered at the Top, and entire opened on the Sides in the Form of Portico's, or bending Vaults ſuſtained by green Columns of a delicate Lightneſs of Shape. We may there enjoy a more ſalutary Circulation of Air, and every Part of the Verdure is nouriſhed with leſs Difficulty, becauſe the free Paſſage of the Air and Sun-Beams renders the Leaves equally ſtrong and lively both above and below.

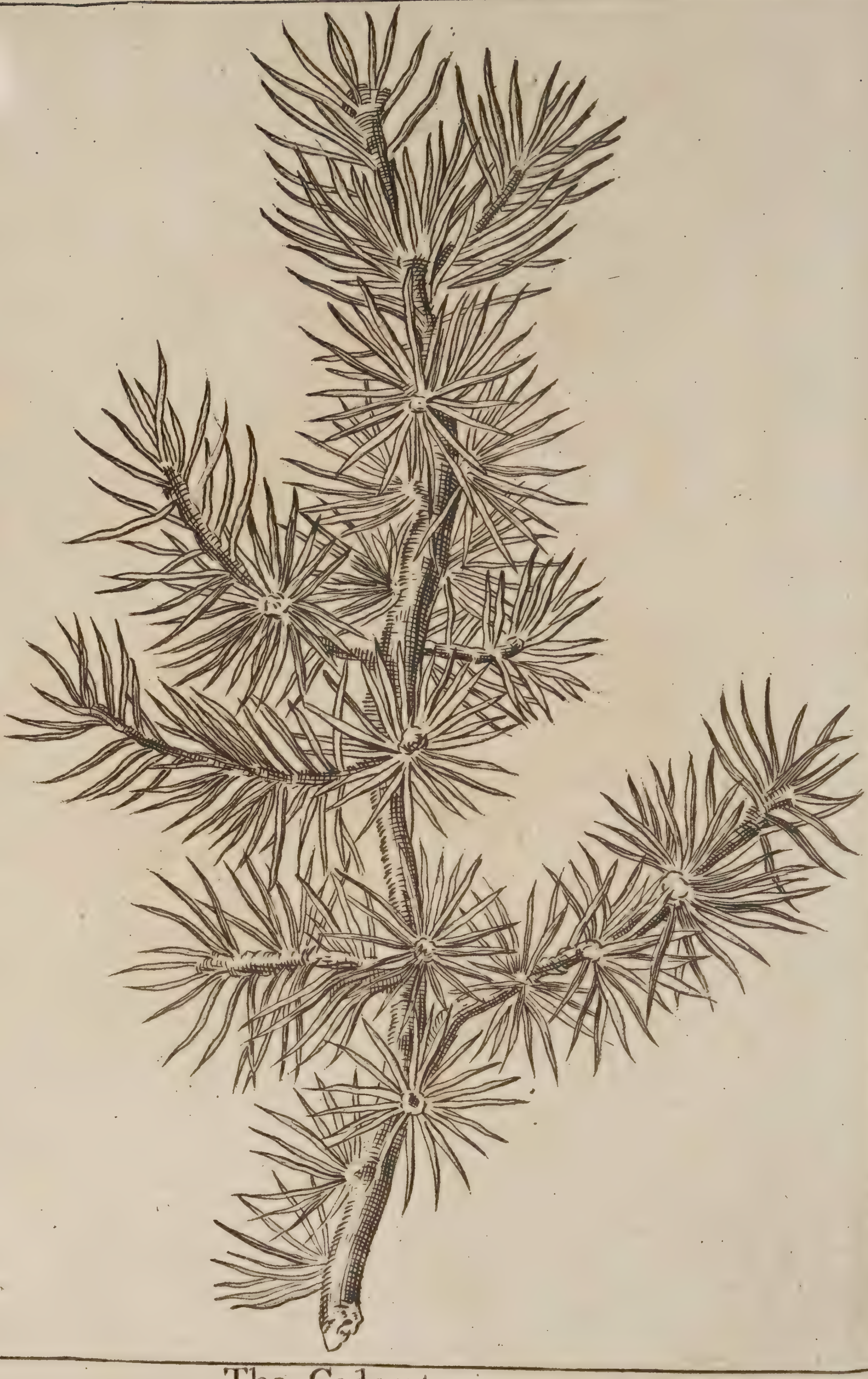
Chevalier. The lower Parts of the Paliſades are undoubtedly diſfigured by an Exceſs of Shade and Scarcity of Air.

Count. Their Height ſhould never equal the Breadths of the Alleys they border; and when the Trees that frequently crown them, have their Tops cut into a regular Level, and

Plate 10 Vol. II page 65



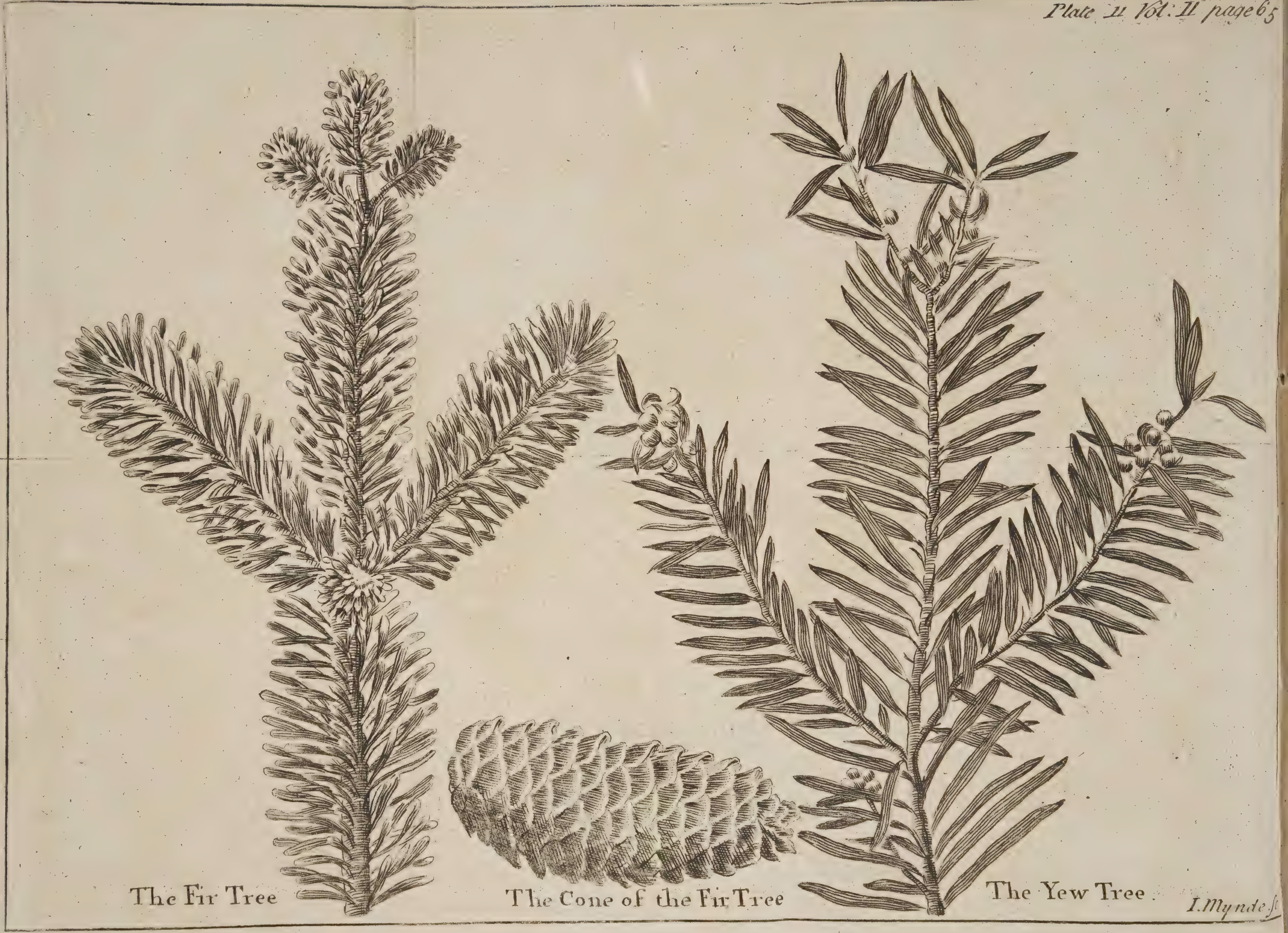
The Cypreſs & its Fruit



The Cedar tree

J. Mynde ſc.

Plate II Vol: II page 65



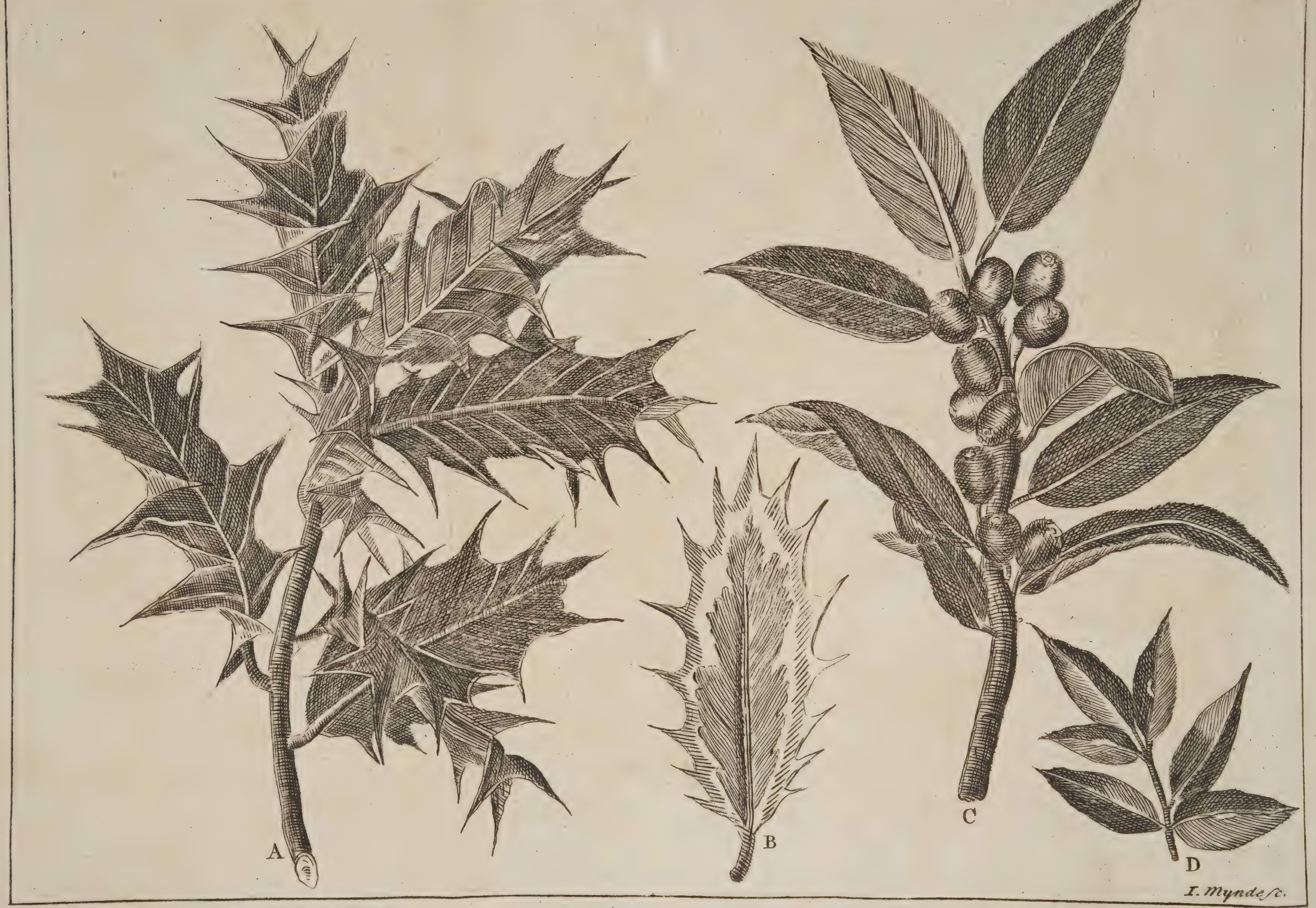
The Fir Tree

The Cone of the Fir Tree

The Yew Tree

I. Mynde sc.

Plate 12 Vol. II page 63



A. The Leaf of the Holly.
B. The Variegated Holly.

The Holly.

C. A young Sprig of the Holly and its Berries.
D. The little Holly.

and are every where diſpoſed into a lightſome Spread, they form a real Wall of Verdure, whoſe Foundations ſeem to be laid in the Earth. They then become the moſt agreeable Ornaments of Gardens, and regulate their whole Architecture.

Chevalier. Is the ſmall Yoke-Elm the only Tree capable of aſſuming this Figure?

Count. The lofty Paliſades, as well as thoſe that are Breaſt-high, may be formed of Lindens, Elms, Beeches, and Hazels; but you muſt only employ the Species from End to End; becauſe the Want of Fraternity in different Sorts of Foliage is diſagreeable to the Sight, and cauſes improper Vacancies. The leſſer Maple has one Advantage, which proves a commodious Reſource in Gardens already formed; and where ſome Reparation may be neceſſary. For it grows in the Shade, and fills a Vacuity better than any other Plant. However, the ſmall Yoke-Elm undoubtedly produces a more amiable and laſting Verdure.

The low Paliſades may be made of Myrtle, Yew, Laurel, Privet, Hawthorn, and even Pomegranate-Trees, if you are deſirous of Magnificence.

Chevalier. A Paliſade of Pomegranate Trees muſt ſurely ſeem all in a Flame, in their flowering Seaſon.

Count. If we have any Inclination to conceal either the Walls or Plots of Grounds that are uſeleſs and irregular, or not much favoured with the Rays of the Sun, and which preſent us with no agreeable Appearance; we may form a Paliſade, or ſome other Figure, of thoſe Trees that thrive, with a conſtant Verdure, in the coldeſt Places, and can always be drawn into an Extent of the fineſt Tapeſtry, over each unpleaſing View. Such, for Inſtance, are the Yew, the Ever-green Privet, the Reſin-Tree, the Cedar, the Green-Oak, the Box, the Holly, and the Ivy.

The Ever-Greens may likewiſe be employed in forming thoſe Portico's and Paliſades that are to bound the View, from any particular Apartment; and we find them ſo very agreeable, that their Verdure is frequently imitated by painted Wood.

Chevalier. Thoſe who encloſe their Gardens with an Embelliſhment of this Nature, have no Cauſe to be apprehenſive of the Fall of the Leaf.

Count. Every Perſon has a particular Taſte, and nothing ought to be more unconfined. But when we enter a Garden, we naturally expect to find a real Verdure: as when we viſit a Library, we don't ſuppoſe we ſhall be entertained with painted Books.

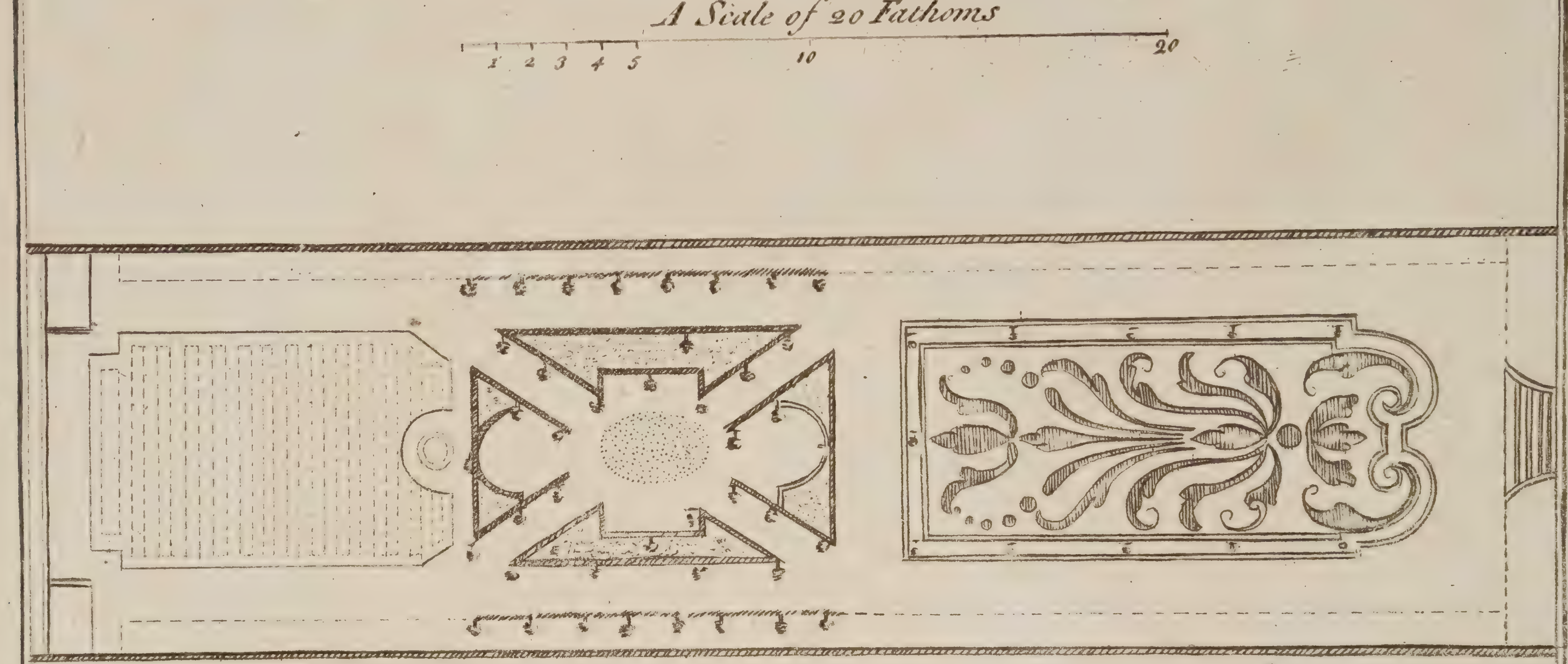
Chevalier. If your Lordſhip thinks the Portico's of colour'd Wood, unfurniſhed with Leaves, ſo improper, what is your Opinion of thoſe Perſons who crowd their Gardens with Marble, and a Variety of gilded Gaieties?

Count. Thoſe Ornaments may poſſibly be very fine, but I am not certain whether they ſuit with ſuch a Situation. The Taſte perhaps in *Italy* and *France* prevails too much in Favour of empty Vaſes, uninſtructive Statues, and Columns without Architrave. But all theſe inſignificant Pieces are ſtill leſs valuable, when they are ſubſtituted in the room of that natural Verdure which ſo delights our View, and is the chief Subject of our Curioſity in a Garden; and I am as little deſirous of meeting with Marble Sculptures, Portico's, and Colonades, in ſuch a Place, as I am to ſee a Parterre of Turf in the Area to an Apartment, or a branching Alley of Trees in a Gallery.

Chevalier. I have been ſometimes told, that a Garden is an Imitation of Nature; that the Alleys and Parterre reſemble the Plains; that the Terraſſes repreſent the Mountains; and that Rills and Fountains correſpond with the Sources of Rivers; that we are likewiſe permitted to blend ſome Embelliſhments with our Imitations; as an Alley is more agreeable than a large Road; a Terraſs ſeems better diſpoſed than the Slope of a Mountain; and a Caſcade flows more refreſhing to the Sight, than a Stream that guſhes from a naked Rock.

Count. Theſe Sentiments are very juſt; but you muſt permit me to obſerve to you, that a Garden is not ſo much an Imitation of Nature, as it is Nature itſelf preſented to us in a near View, and adjuſted by the Aids of Art. I have an Inclination, for Inſtance, to take the Air, and am accommodated for that Purpoſe with a little Plain, and a Length of open Alleys. I am diſpoſed to view the Productions of Nature, for ſome Moments, and am accordingly regaled with a Growth of Flowers and Plants riſing before me, and ranged in ſuch a manner, that the Proſpect of the one is not intercepted by the Appearance of the other. I wiſh to vary the Point of Sight, to be covered from the Wind, and to enjoy a ſe-

Plate 13 Vol. II page 67



A Long Plot of Ground
divided into Parterre, Wilderneſs and Kitchen Garden.

J. Mynde sc.

a ſerene Solitude, without excluding others from the Uſe of my Garden. The Terraſſes afford me all theſe different Advantages: Shade and Freſhneſs are equally deſirable, and I am ſupplied with thoſe gratifying Pleaſures, by improving the other Pieces with a beautiful Thicket and a limpid Flow of Water The Art which forms our Gardens does not conſiſt in counterfeiting thoſe Objects, or amuſing me with a vain Perſpective; a Succeſſion of Arcades in green Boards; the View of a Hall incruſted with Marble; or the Sight of ſome *Naiad* reclining on her Urn with a graceful Air, and on the Verge of a Baſon perpetually dry. The meritorious Effect of Art is to aſſemble the Water and Verdure in Reality; to facilitate my Walking, and ſhelter me from injurious Airs. Art therefore is not the Imitation, but the Arrangement of Nature; and borrows from her alone each Pleaſure it preſents to my View.

But let us render all due Juſtice to Art, ſince it diſpenſes a graceful Symmetry to its Aſſemblage of natural Productions. A curious Proprietor of a Tract of Ground is frequently obliged to form a Garden out of a Plot of Land, whoſe Length is greatly diſproportion'd to its Breadth But all the Irregularity of that Figure is rectified with the greateſt Eaſe. He divides the Whole into three oblong Squares; the firſt of which he forms into an agreeable Parterre, and diſpoſes the laſt into a fine Olitory. The middle Compartment he appropriates to a Grove, which, by riſing between the Diviſions in each Extremity, breaks the View of that diſagreeable Length. The Grove is traverſed from Angle to Angle, by Tracts formed like St. *Andrew*'s Croſs: Its Inſide is embelliſhed with a verdant Hall, and its outward Ornaments are two bowery Cabinets, or green Niches; one of which fronts the Parterre, and the other is oppoſite to the Olitory: The whole Proſpect has an Air of Proportion; and two Alleys, by running parallel with the Walls through their whole Extent, form long Walks, and a free Communication with three different Gardens.

Another Perſon poſſeſſes a more ſpacious Plot, but triangular in its Form, or perhaps more irregular. This he diſtributes into different Diviſions, which are rendered agreeable by their peculiar Beauties and correſponding Air. His Parterre will be border'd with two large Palliſades; one of which will form the outward Bound of a ſpacious Wood, interſected with a Variety of Alleys; the other, by being crown'd with Trees of equal Loftineſs, ſeems to preſent us with a ſecond Thicket, in a different Taſte; and we imagine it to be equally extenſive with the other, though in reality it is no more than a Range of Verdure without depth, whoſe Function is to ſhroud a Wall, that limits the Plot in that particular Place. Art therefore not only enlarges an Extent of Ground, but unites the moſt diſſimular Parts, by elegant Connexions, and conceals their natural Irregularity by the conſtant Appearance of Symmetry. The extreme Parts of the Garden, that ſeem loſt behind theſe regular Lines, are capable of being formed into Orchards, Nurſeries, Plantations of Fig-Trees, and Beds for Melons.

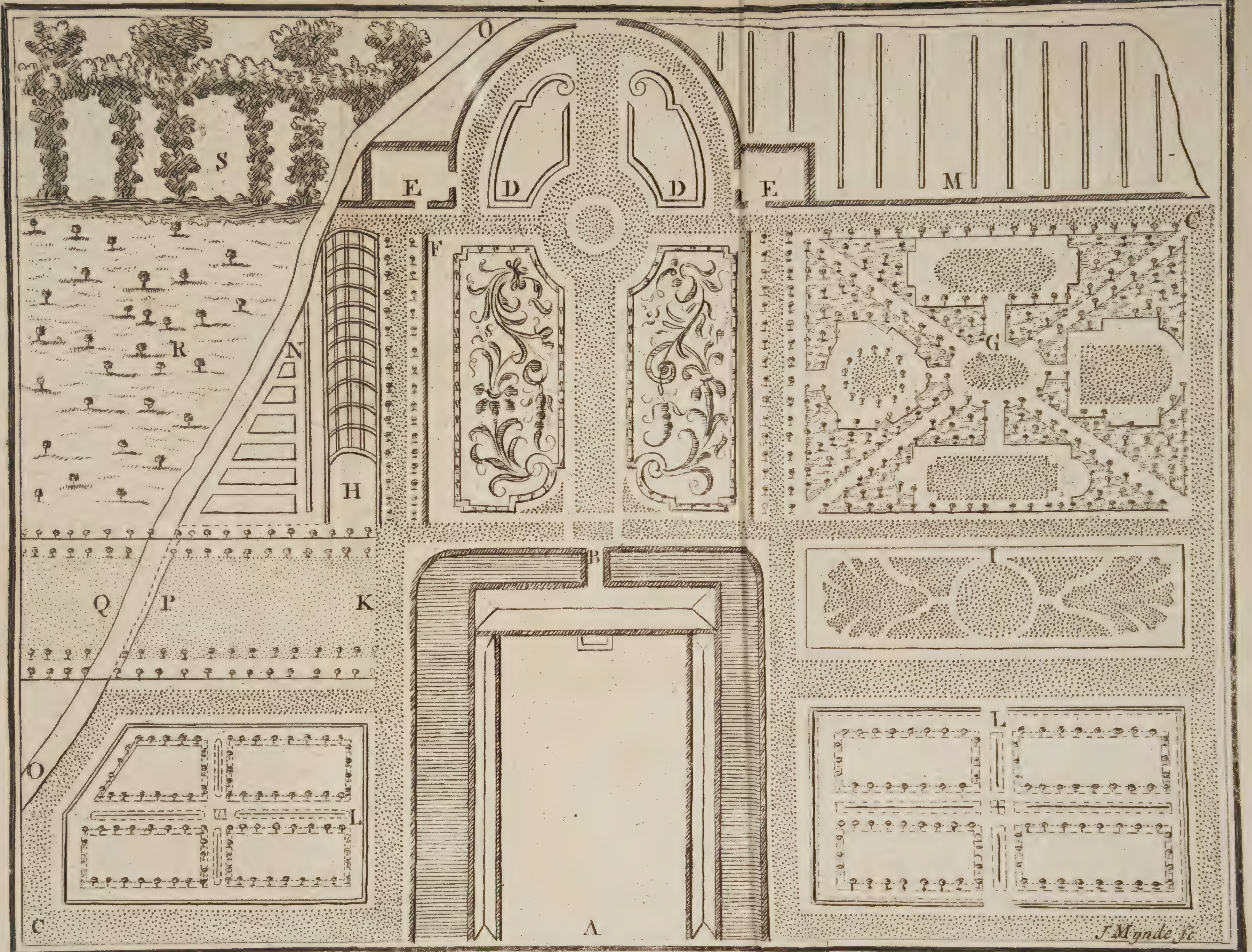
It undoubtedly requires no common Dexterity or Thought, to complete all the beautiful Diviſions of a Garden, in Detail: To ſmooth one Part, for Inſtance, into a Level; to ſink another into ſuch a gentle Declivity, as will afford a trickling Flow to Rains, without rendering the Walk incommodious; to trace out the true Dimenſions of a Parterre; to ſpread a uniform Surface of Turf; to conduct the Paſſage of a Stream; to extend the Alleys in ſtreight Lines; to round the Arbourets; to ſtrike Viſta's through a Wood, and improve the Proſpect all around. But the great Secret of Art conſiſts in a true Taſte of Nature, and a Capacity to improve her Gifts, and render the whole agreeable and engaging by a juſt Diſpoſition of the Parts.

A ſmall Plot of Ground admits of nothing more than a Simplicity of Deſign, and a Propriety in the Execution.

But when the Extent of Land is very ſpacious, and breaks into a Number of Inequalities, a great Genius will improve the Whole, and can even cauſe the Irregularities of Situation to diffuſe an Air of Novelty in every Part, and prevent the Appearance of a diſagreeable Uniformity. He will not ſuffer the whole Extent of his Garden to be laviſhed in one View, but will exhibit for the firſt Object a large Compartment richly array'd with Flowers, and improved by fine Pieces of Water, and ſtately Trees, and ending in a Diſtribution of Bowers of Paliſades. The Spectator's Eye is ſatisfied with this Proſpect, and requires nothing more: But he is afterwards agreeably ſurprized, when he finds the Objects, which he imagined to be the Boundaries of his View, are ſo many Openings into a new Order of Beauties.

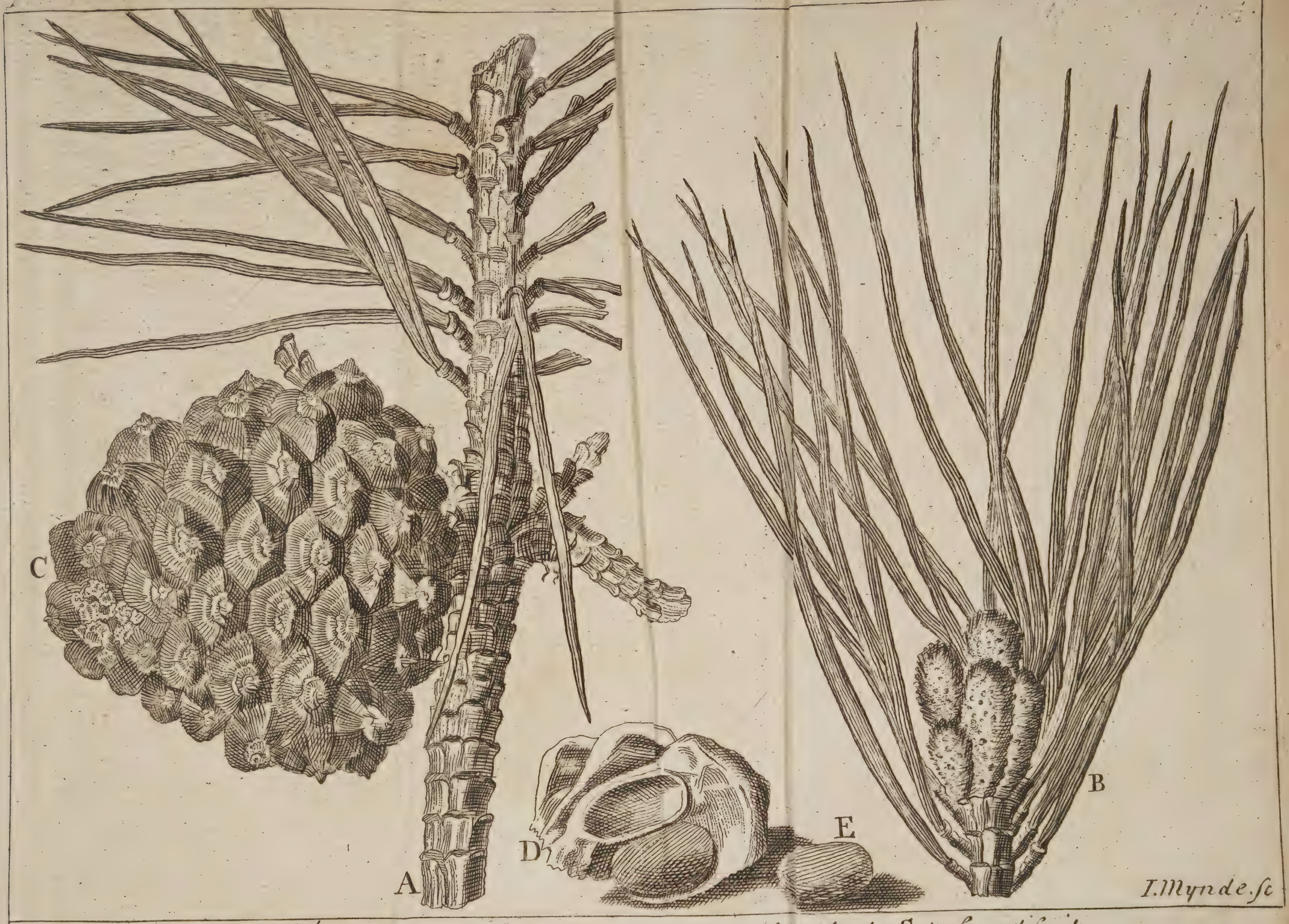
The

An irregular Garden Plot.



A *The Court Yard and Buildings.*
B *A Bridge over the Foſse.*
C *All thoſe places pointed with dots are Alleys cover'd with Turf.*
D *Large Beds embelliſh'd with Flowers*
E *Verdant Halls*
F *Paliſadoes.*
G *A Little Grove*
H *An Arbour wth an adjoining Terraſs for enjoying a proſpect of the Country* R
I *A Parterre after the Engliſh manner to be view'd from one of y^{e} wings of y^{e} house*
K *A large Alley under y^{e} windows of the other wing & extended to the Country.*
L *A Parterre divided into oblong compartm^{ts}*
M *A part of y^{e} Plat form'd into an interſected gar^{den}*
N *Another part of the plat diſpoſed into Melon beds*
O *The High Road*
P *A Short Palliſado low enough to Unite the View of the alley* K *with the Avenue* Q
R *The Country*
S *The Elevation of the Arbour* H.

Plate 15 Vol. II. page 68



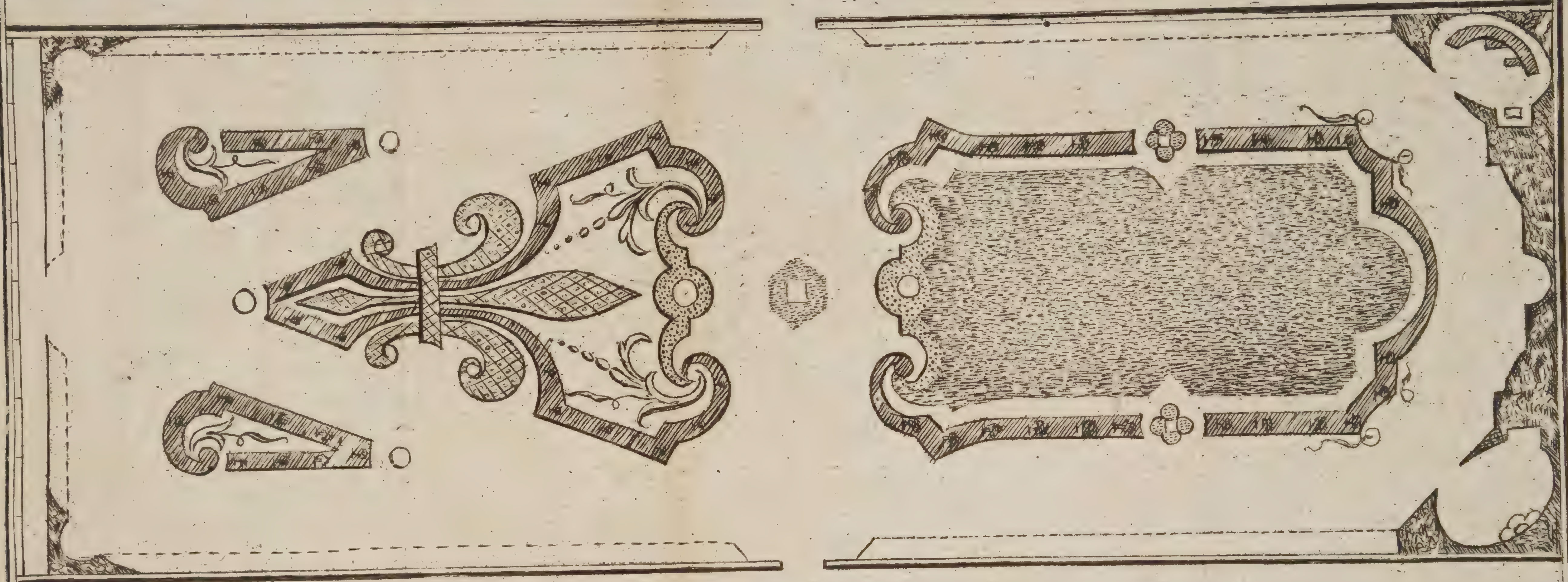
The Pine Tree

A. A Branch of the Pine Tree wth its Foliage & Apple.

B. An Extremity of ye same branch wth its Foliage, & Chives, from whence the powder falls into the Orifices of te Apple C to fecundify it.

D. Par of the Apple bruised.

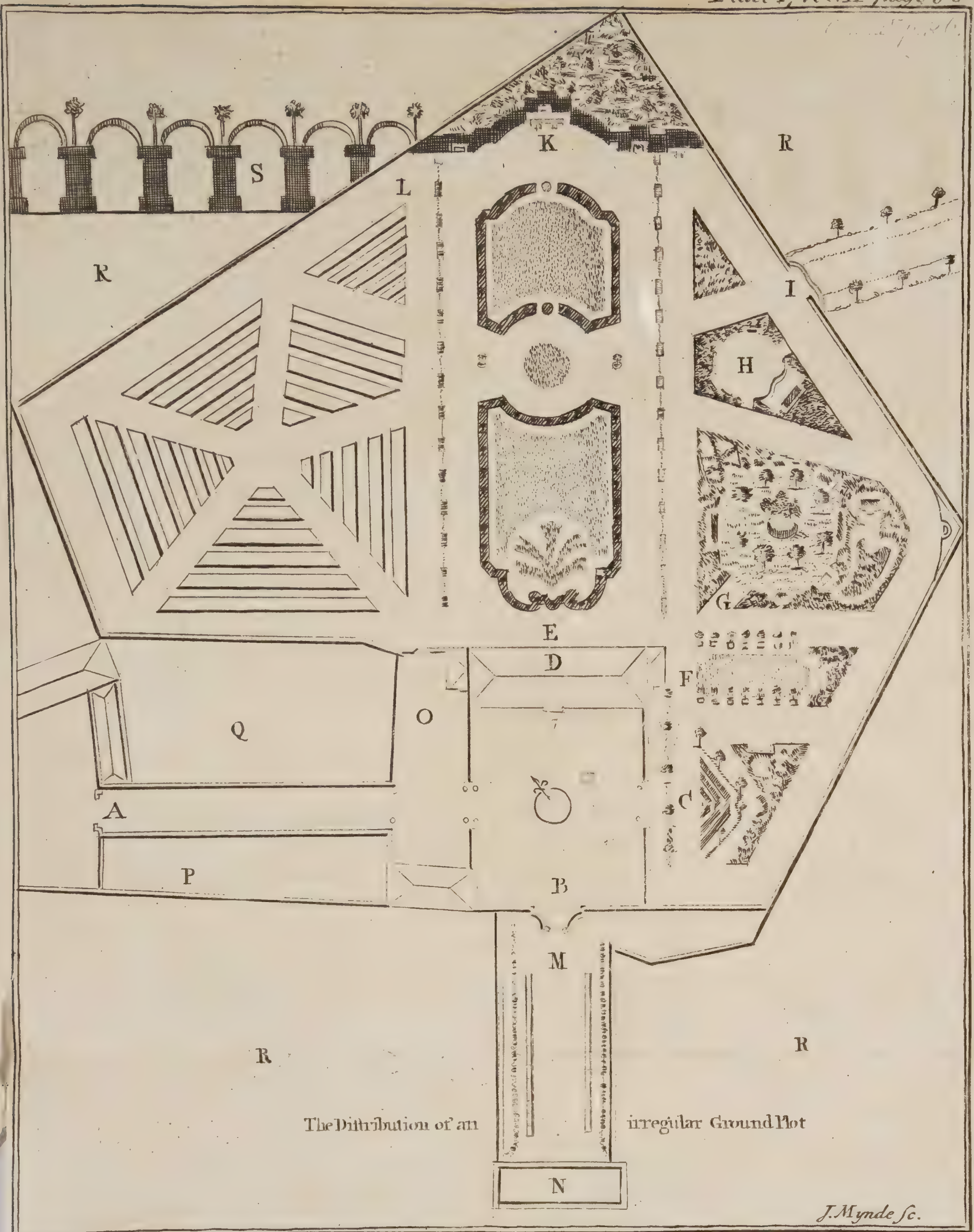
E. The Kernel of the Pine Apple taken out of its Nich.



The Diſpoſition of a plot of Ground

containing 36 Fathom in Length & 9 in breadth

I. Mynde ſc.



The Diſtribution of an irregular Ground Plot

J. Mynde ſc.

A The Entrance.
B. The great Court.
C. An Amphitheatre of Flowers, wth 2 ſweeps. embelliſh'd wth Vaſes, viſible at ye firſt entrance
D. The Houſe.
E. The Parterre of plain Turf, with two Paliſadoes form'd into Arches.
F. A graſs-plat & affording a View to 1 of the (wings.
G H K Benches, Niches, Halls, Cabinets, & other Forms of Verdure of a different Taste.
I. A low Paliſado, to unite ye View of the Alley with the Avenue, extended into ye Country. R.

L. Alleys in the Kitchen Garden.
M. A false entrance with two paliſadoes, & embelliſhed with two borders, usually adorn'd with Flowers, or Vaſes.
N. A large Moat, which does not intercept the extent of ye proſpect from the houſe, D, to the end of ye Avenue, wch is carried from N.
O. A Yard for Poultry.
P. Stables.
Q. Adjacent Outhouſes. (-der
S. The elevation of the paliſadoes that bor- the Parterre, and are cut into Arcades.

The full Proſpect of the adjoining Country is likewiſe
nceal'd from him, at his firſt Entrance into the Gar-
n, and he is only permitted to ſee one Part of it, as it
ere by Stealth. You have here, for Inſtance, a rural
iew through the long Viſta that fronts the Parterre; and
e Proſpect is more extenſive at the end of that croſs Alley,
rminated by a Paliſade, Breaſt high; and which has been
wered in that manner, to unite the Garden with the out-
ard Avenue, to which it correſponds. The Paliſades
d Groves are not ſuffered to riſe to ſuch a Height as would
tercept the Proſpect of the neighbouring Plain and Moun-
ins from the upper Apartments. This View is render'd
ore agreeable by its not being unfolded when you enter the
arden; and indeed it is a conſiderable Advantage to our
tificial Spots of Ground; when we have no Opportunity of
mparing them, in unlimited Freedom, with the magni-
cent Garden of Nature, which would cauſe ours to ſhrink
om our View. It is certainly much more pleaſing to be
rpriſed with the Expanſe of an unbounded Plain, when you
me to the Edge of a Grove, or the Turn of a Paliſade.
ou may perceive the Effect of ſuch a Diſpoſition, when
e paſs behind that Arbour, in order to ſeat ourſelves on the
erraſs which riſes on the other Side.

Chevalier. It ſeems as if ſome Perſons had undrawn a
urtain, that conceal'd the Heavens and the Landſkip from
r View.

Count. We may diverſify the Proſpect as much as poſſi-
e, by paſſing from one Diviſion of the Gardens to ano-
er: New Taſtes and new Characters may riſe before us.
ne part preſents us with an Air of Grandeur: another has
more ſprightly Appearance. In this Place a Star ſhoots
t its verdant Rays, and leaves us uncertain of the Track
e ought to take through the Wood. That opening Hollow
covered with a long green Carpet, and reſembles the in-
erted Roof of a Coach, The Arcades of Lindens that bor-
er it; the Vaſes of Flowers that adorn thoſe Arcades; the
agrant Freſhneſs we there enjoy; the free Circulation of
e Gales; the Melody of innumerable Birds, who warble
the Branches of that Retreat; every Circumſtance attracts
our Attention, and tempts you to continue in that delicious
erdure. Another Portion of the Garden glooms with a
litary ſavage Air, and qualifies the Mind for the Sedate-

neſs of Contemplation. In that Quarter every ſolemn Thought is diſſipated, and the Eye wanders over the adjacent Cots and Hamlets. An unfertil Spot, that reſounds with the Northern Blaſts, may be converted into a Grotto, where we may retire from the Heat, and be accommodated with a reviving Coolneſs. An Eminence of difficult Acceſs is aſcendible by a long Flight of eaſy Steps cut in the Earth, and which conduct us to ſuch a delightful Point of View, as makes us reproach ourſelves for not obſerving it ſooner. When we thus can regulate all Plots and Situations, in a judicious manner, and are able to complete each Object by Nature's Model, we may diverſify her Aſpects, and multiply her Beauties; we may then ſtrike out open Walks, and cover ourſelves with arching Shades, agreeably to the different Seaſons and Changes of Weather; and if the Day happens not to be rainy, we may be always ſure of enjoying the Benefit of a pleaſing Air, without being incommoded by the Severity of the Winds, or Sun. We ſhall be gratified, by theſe Precautions, with all the amiable Stores of Nature; and a ſingle Turn in the Garden, is a little Journey, which we always finiſh with Satisfaction, and find it a ſalutary Exerciſe.

THE
Pleaſures and Advantages
OF
GARDENING in General;
AND
Of the OLITORY,
OR
KITCHEN-GARDEN, in particular.

DIALOGUE V.

The PRIOR. *The* CHEVALIER.

Prior. HOW came you, Sir, to entertain a Thought of making the agreeable Collection you have mentioned?

Chevalier. I owe it entirely to you, Sir; for when I was laſt in this Place, you adviſed me to read the Georgics of *Virgil*, and after that, the Gardens of * *Rapin*, and † *Vaniere*'s Farm; which I have accordingly done.

Prior. I need not aſk you then, if you are become an Advocate for a Country Life?

Chevalier. One is certainly tempted to withdraw from Cities, after reading thoſe Authors; and their three Poems have inchanted me to ſuch a Degree, that I have had them all bound in this ſingle Volume, which I call my rural Library.

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* Renati Rapini Hortor. lib. IV.

† Jacobi Vanerii Prædium Ruſticum.

Prior If we except ſome Fables, in which Father *Rapin* has revived the Gods and Language of the Pagans, without any Neceſſity for that Proceeding, ſince the Fiction is not productive of any uſeful Truth; theſe three Works may be read with perpetual Pleaſure and Improvement. I am ſenſible, that the Public alone has a Right to decide, whether the *Gardens* and the *Farm* are worthy to be conſider'd as the ſecond and third Parts of the Georgics; but I intend to imitate your Example, and join them together with one common Title, which ſhall be the very ſame that you have ſuggeſted to me.

Chevalier. But may we not enlarge this Library a little.

Prior. Nothing prevents us from increaſing it with ſeveral Paſſages out of *Cato*, *Cicero* *, *Horace* †, and *Pliny* ‡ the Naturaliſt: who preſents us with the fineſt Images of Huſbandry and a rural Life.

Chevalier. Let us not forget the two Villa's of *Pliny* the younger §. I have lately viſited all their Apartments and Gardens with abundance of Pleaſure, and with Monſieur *Felibien* for my Guide.

Prior. The Works we have mention'd are ſome of the fineſt and moſt delicate in the *Latin* Tongue.

Chevalier. I fancy we may be furniſhed with a Collection of this nature from the *French*.

Prior. I can aſſure you, Sir, that our Tongue, or at leaſt our *French* Poetry, has not any Work of Taſte that deſerves to be ranked in your Plan.

Chevalier. I am extremely ſurpriſed at that, ſince the Subject is ſo fine, that it is impoſſible for Poetry to expatiate in a more delightful Field.

Prior. It is undoubtedly a Subject worthy of the greateſt Maſters. Huſbandry, in particular, has been unattempted as yet, and we have not one *French* Poet who has ſtruck out the leaſt Sketch of it; though it would certainly furniſh a happy Genius with the moſt effectual Means of pleaſing every Reader.

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* Cicer. de Senect.

† Lib. II. Sat. VI. & I. Epiſt. 10, 14, 16.

‡ Hiſt. Nat. l. 18. cap. 2.

§ Plin. jun. Laurentinum, l. 2. Ep. 17. & Thuſci, l. 5. Ep. 6. Vide Les Maiſons de Pline, par Felibien.

Pray inform me, Sir, as we are walking towards the
tchen-Garden, whence proceeds the ſingular Delight
u experience in reading thoſe amiable Writers that com-
ſe your little Collection? I am ſenſible their *Latin* is pure,
d their Paintings repreſent Realities; but they ſhare theſe
ualifications in common with other Authors: Why then
e they more agreeable to you than all the reſt?

Chevalier. The Pleaſure they afford me, proceeds un-
ubtedly from their Choice of rural Objects.

Prior. I am of the ſame Opinion; and we may eaſily
eſee they will always be read, becauſe their Subject is not
noxious to the Viciſſitude of Years, or the Caprice of
aſtes. We are generally born Gardeners, and our firſt
clinations tend to the Culture of Fruits and Flowers. We
e divided with reſpect to all other Articles; and our Taſte
r Huſbandry is the only Diſpoſition that re-unites us.
hatever Difference the Neceſſities of Life, or the Cuſtoms
Society may create in our uſual Employments, we always
member our original State. Man, in his firſt Innocence,
as deſtined to cultivate the Earth; and we have not loſt
e Idea of our ancient Nobility; every other Condition of
fe ſeems to ſubject or degrade us; but whenever we diſ-
gage ourſelves from our common Occupations, and can
eathe in Freedom for a few Moments, we are ſenſible of
ſecret Propenſity to Gardening. The Merchant thinks
mſelf happy, when he has an Opportunity of paſſing from
s Compting-Houſe to his Flowers. The Mechanic, whom
gid Neceſſity always fixes to the ſame Place, adorns his
indow with a Box of Verdure. The Military Man and
e Magiſtrate are equally ſollicitous for a Country Life,
d retire, for ſome Months at leaſt in each Year, from the
ourt, the City, and the Hurry of Affairs, to enjoy the
harms of their rural Eſtate. Gardening is then their
vourite Language, and the Generality of them are emu-
us to underſtand its fineſt Operations. In a word, the
ltivation of a Garden is only diſreliſhed by a falſe Taſte,
d a depraved Delicacy of Thought.

Men of the fineſt Genius and moſt exalted Stations have
ſtinguiſhed themſelves, in all Ages, by a remarkable In-
ination to the Culture of the Earth. This Inclination is
en now conſider'd as the Panegyric of *Solomon*, King
zzia, the younger *Cyrus*, *Fabricius*, *Hiero*, *Maſiniſſa*, the

Emperor *Probus*, *Charles* the Fifth, and *Lewis* the Fourteenth.

Chevalier. I know that *Lewis* the Fourteenth cauſed the Gardens of *Verſailles* to be formed from the Deſigns of Monſieur *Le Notre*, but did not imagine he ever made Gardening his particular Amuſement..

Prior. When he had been converſing for ſome Time with Marſhal *Turenne*, or Monſieur *Colbert*, he entertained himſelf with Monſieur *de la Quintinie*, and frequently took a Pleaſure in ſhaping a Tree with his own Hands. I ſhall not tell you that the Earth was conſcious of the Honour of being cultivated by Hands accuſtomed to a Sceptre: But you will readily acknowledge, that a Plant could not fail of Succeſs, when it was governed by the ſame Prudence that conducted the State. We may even ſay, that every thing is more proſperous under the Hands of Heroes *, becauſe they devote more Care and Precaution to the Management of each Particular they undertake. We are now arrived at the Kitchen-Garden, let us walk in.

Chevalier. This is the firſt Viſit it has received from me this Seaſon. What a Scene of Order and Elegance is here!

Prior. It is a real Republick in every Particular. A ſkilful Hand has parcelled out all the Land, and aſſembled a whole People of Plants, aſſigning to each its proper Dwelling and Situation. Thoſe Families that are ſprung from the ſame Original are lodged a-part in diſtinct Cantons, and form as many different Communities. Their Multitude never creates any Confuſion here; and you may obſerve a general Propriety and Regulation diffuſed through the Whole.

In order to prevent the Citizens of this State from being injurious to each other, and that the great ones may not impoveriſh their Inferiors by engroſſing the nutrimental Juices of the Earth to themſelves, the ſmaller Plants have ſuch a Portion of Ground allotted them, as ſuffices for their Support, and at a proper Diſtance from thoſe Trees which demand a copious Suſtenance, and muſt be lodged more at large. Or if they ſometimes approach each other, and are obliged to live together in one Society, the ſtrongeſt Trees are then curbed by ſuch ſevere Laws, as render them incapable of being injurious to the leaſt Species of Pulſe;

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* Plin. Hiſt. Nat. l. xviii. c. 2.

and the vigilant Care of a good Government cauſes the whole Tribe to flouriſh in perfect Harmony with each other.

The Beauty of a Kitchen-Garden.

Chevalier. I not only admire the Order I here diſcover, but am equally affected with the Beauty that appears in every Part.

Prior. It is the Order itſelf which conſtitutes that Beauty.

Chevalier. I obſerve that the Eſpaliers, which cover the Walls, riſe exactly to the ſame Height, and not a ſingle Leaf is permitted to advance above another.

Prior. One would be apt to take them, at the firſt View, for a Set of fine Tapeſtry.

Chevalier. Thoſe Buſhes that edge the Squares are formed in the utmoſt Perfection.

Prior. They are ſo many natural Vaſes that embelliſh thoſe Alleys, and are infinitely more amiable than ſuch as are formed out of Marble and gilded Metals.

Chevalier. Wherever I direct my View, either through the Alleys, or over the Beds of Herbage, I obſerve a regular Extent, and a perfect Symmetry; and am not able to determine whether I ought to give the Preference to the Parterre, or the Olitory, even with reſpect to the Charms of Proſpect. This is a Point, Sir, which I leave to your Deciſion.

Prior. The Parterre, indeed, is more lively and dazzling, at the firſt View; but the Olitory will attract the Spectator's Eye for a longer Time, and create more Satisfaction in his Mind. A Parterre is a Beauty that ſeems a little too much adjuſted by Art, and its Anxiouſneſs to pleaſe is render'd too apparent: But this Foible is excuſable in a Parterre, which is only formed to amuſe us with a tranſient Pleaſure. The Graces of an Olitory have more Reality, and a much eaſier Air; and, beſides the Softneſs of its Colours, with the Symmetry and Grandeur of its Appearance, it enjoys two Qualities that are ſtill more valuable: I mean, an extreme Simplicity and a very extraordinary Uſefulneſs. Simplicity is the right Adjuſtment of the Amiable, and exhibits it in its full Merit; and all the World allows Uſefulneſs to be the compleateſt Inſtance of Perfection.

Chevalier.

Chevalier. Is this Simplicity ſo great as you repreſent it, ſince I obſerve it to be intermixed with a Variety of Flowers?

Prior. It is ſo indeed; but they don't owe their Arrangement either to Art or Study. No particular Care has been taken to plant them where they now make their Appearance, and they preſent themſelves to our View in a ſpontaneous Bloom. They reſemble thoſe Graces of Youth which Nature is induſtrious to embelliſh; and we are no longer touch'd with any Agreeableneſs, than while the Solicitude to diſcloſe it ceaſes to be apparent.

Chevalier. The Competition in this Particular is to the Diſadvantage of the Parterre. But if the Kitchen-Garden triumphs in the Month of *May*, what may we not expect from it in *September*.

Prior. I am not for limiting its Merit to the Flowers of Spring, nor the Fruits of Autumn; ſince it enriches its Maſter with new Preſents through the whole Courſe of the Year.

The Fertility of a Kitchen-Garden.

The moſt ſalutary of thoſe Productions, with which the Earth arrays its Hills, and Plains, and Valleys, may be aſſembled in an Olitory for the uſe of Man. This is his great Magazine of Suſtenance, Remedies and Amuſements. There does he daily gather the verdant Produce of the Seaſon, and is able to diſtinguiſh the firſt Rudiments and improving Growth of thoſe Gifts, that will afterwards riſe to his Hand; by which Means he enjoys, at the ſame Time, the preſent Plenty and the Promiſe of a future Fertility. It muſt delight him beyond Expreſſion, to viſit a Place where every Object tenders him ſome agreeable Preſent, and ſeems kindly ſedulous to ſupply his Wants, and regale his Taſte with all the Varieties he can deſire.

Vineyards and Arable Lands preſent us with their Productions but once a Year, and then remain unactive for ſeveral Months; nay, a whole Year's Repoſe is often neceſſary to recruit their exhauſted Vigour. The Kitchen-Garden, on the contrary, preſents us with a ſpeedy Succeſſion of new Crops, and continues its Liberalities even in the Winter-Seaſon, by ſeeming to reſerve, for that particular Portion of the Year, thoſe Fruits and vegetable Food which may be kept for a conſiderable time; that ſo we may always enjoy its Favours, even when the ſevereſt Froſts has ock'd up its Treaſures, and interrupted the Courſe of its Services.

Chevalier. You aſcribe the fineſt Intentions in the World to this Sort of Garden ; and its Productions are really attended with ſuch Circumſtances as ſeem to reſult from thoſe very Intentions.

The Succeſſion of Fruits and Herbs.

Prior. The Intentions to ſupply us with Fruits and Herbage, at regular Seaſons, and in proper Quantities, are undeniable Realities, and you know where they all reſide. The Author of Nature has intermixed a wiſe Oeconomy with a boundleſs Profuſion, and diſpenſes the various Kinds of Fruits and Herbs in ſuch a manner, as qualifies them to cover our Tables through every Seaſon of the Year. He cauſes them to ſucceed each other without Interruption, and without Confuſion. Inſtead of laviſhing all his Liberalities at once, and to ſuch a Degree as would overwhelm us with their Luxury, he rather chuſes to render them grateful, by imparting an Air of Novelty to each Species. His Bounty begins with the Delicacy of red Fruits, and continues to ſupply us from Month to Month, or rather from Week to Week, with new Kinds, and of all Qualities and Colours; but they are not preſervable for any Length of Time, becauſe they are ſoon to be ſucceeded by others. He reſerves for the ſevere Seaſon thoſe Productions that acquire a firm Conſiſtence; and when the Earth is even chill'd with Cold, and diſcontinues its Fertility, the Store-Room, where the Fruits are depoſited, communicates to ſome Species a gradual Maturity, which the Tree refuſed them. This gracious Precaution ſupplies the Winter with a Harveſt peculiar to it, and preſents us with Fruits that are unknown in every other Seaſon. Thus is the Year rendered a perpetual Circle of Flowers and Fruits. Part of this Circle is frequently unadorned with Flowers; but the Fruits never leave any vacant Spaces. You may demonſtrate this Truth, by taking a particular Survey of thoſe Productions that grace an Olitory in a regular Succeſſion; and you will be ſenſible that this Liberality is never interrupted.

Chevalier. Such a Garden as this ſeems to be a perpetual Source of Accommodations.

Prior. It is certainly an Enjoyment well worth procuring, and nothing is more conſiſtent with the preſent Mode than a fine Olitory. Reaſon therefore may ſometimes happen to correſpond with a reigning Faſhion.

Chevalier. We have a Garden intended for this Uſe at our Country Seat; but it muſt be laid out in ſome new manner, becauſe nothing ever thrives in it. Be ſo good, Sir, as to let me know what Diſpoſition you would give it were the Ground yours. It forms a very ſpacious Square; but I am for ſpreading Deſtruction thro' the whole, and would then conſign it to your Management: You may extend your Lines, and plant it as you pleaſe, and have full Liberty to alter it in every Particular as you think proper.

Prior. The Plot of Ground, upon which you would employ me, may perhaps be uſeful in any Form but a Kitchen-Garden.

Chevalier. The Architect thought it the propereſt Spot to form an agreeable Figure with the reſt; and it will be difficult to apply it to any other Uſe.

Prior. When a proper Situation for a Kitchen-Garden is to be choſen, it is ſometimes ſaid, that we ought rather to have recourſe to a Gardener, than to an Architect; leſt the Conſideration of mere Symmetry, and Commodiouſneſs of Proſpect, ſhould prove an Inducement to fix on a Soil that will create abundance of unavailing Expence to improve it into Fertility; ſince all the Culture and Induſtry you can employ upon it may perhaps be incapable of changing the Malignity of its Nature. I ſuppoſe the Plot of Land, which you have commiſſioned me to manage as I pleaſe, is not ſo intractable; and I will now give you the proper Idea of a Kitchen-Garden, which can never be complete without theſe five different Advantages: A good Soil, a favourable Aſpect, a beautiful Diſtribution of the Ground, a ſufficient Quantity of Water, and a proper Choice of Plants. This is a very copious Subject, and we will reſerve it, if you pleaſe, for our Entertainment To-morrow. Let us therefore finiſh our Walk at preſent, when we have read the firſt Paſſage of *Vaniere's* Farm, that preſents itſelf to our View when we open the Book.

Chevalier. I perceive he is your favourite Poet.

Prior. He is the Author who gave me a Reliſh for Reading, when I was of your Age. The firſt Ideas that create agreeable Impreſſions in our Minds are always moſt permanent, and afford us the greateſt Pleaſure when we recollect them.

THE DISPOSITION OF AN OLITORY, OR KITCHEN-GARDEN.

DIALOGUE VI.

The PRIOR. *The* CHEVALIER.

Chevalier. WE are now to form a complete Olitory, and muſt therefore unite in one * Plot a good Soil, a favourable Aſpect, a beautiful Diſtribution, a ſupply of Water, and a proper Choice of Plants.

Prior. We have Liberty to make the Model as perfect as we pleaſe in our Converſations, and may diſtribute all our Materials to the beſt Advantage.

The Temperaments of Earth in general may be diſtinguiſhed into theſe three Claſſes, Sand, Loam, and Clay. Sand is a Collection of ſolid, ſtony, and looſe Particles, of a roundiſh Form, and almoſt incapable of any Coheſion with each other. The Parts of this Earth, in Proportion to their Enlargement and

Sand.

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* Inſtruction de M. de la Quintinie. The Art of Huſbandry, by J. Mortimer.

Variation from a globular Figure, are gradually changed into Gravel, or a Couch of Pebbles. Theſe different ſtony Soils are capable of receiving Water, Oil, Salts, Fire, Air, and all the Principles of Vegetation, into their Interſtices; but can never retain them for any conſiderable Time, ſince the nutrimental Mixtures ſlide through the Vacuities as eaſily as they at firſt filled them. The Cultivation therefore of this Kind of Land is ſeldom productive of any fertil Effects.

Pure Earth.

Pure Earth, on the contrary, is a Maſs of little Clods, extremely fine, and probably of a cubical Form, qualified for an intimate Conjunction with each other, and for continuing imbodied in that manner. When the Earth is very compact, and its conſtituent Particles are not ſeparated by any Cavities, it forms Soils of Clay, Marl, or Chalk, which retain the Juices they receive; but are not very tractable to the Impreſſions, of Water, Heat, and Air. The Fibres of Plants can hardly penetrate theſe Soils, and their Culture is rendered very difficult, I may venture to ſay impracticable.

Loam.

Loam, or that Earth which is a Medium between Sand and Clay, is a Powder which partakes of the Pliancy of Sand, and the Conſiſtence of pure Earth, and may be called a Compoſition of minute ſupple Maſſes; ſomething ſpungy in their Nature, and eaſily diſunited by Labour. They readily open to the Influences of the Air, and are very retentive of what they receive. Plants can ſhoot their Fibres into this Soil without any Obſtruction, and are there accommodated with a copious Nouriſhment.

Chevalier. Happy is that Perſon who can form his Kitchen-Garden in a Soil of this Nature, which preſerves a Medium between compact and light Earth. But how can we know whether the Land be ſuitable for our Purpoſe?

The Marks of a good Soil.

Prior. That juſt Temperament of Soil, which I call Loam, is manifeſted by the Pliancy of the Parts that compoſe it, and by the Vigour of its Productions. But we too often meet with a Diſproportion in its Qualities, and this Earth of an intermediate Nature may be ſandy in ſeveral Degrees, without being Sand itſelf; or it may reſemble Marl, without having any real Intermixture of that Subſtance.

Chevalier. When a Soil is either too lean or too compact, e there no Methods of rectifying theſe Defects?

Prior. Our Gardeners endeavour to correct them with a ariety of Manures; by which I mean thoſe rths or Compoſts which they ſpread over eir Gardens to render them fertil. They lay orſe-Dung, which is light and dry, on a Soil of Mould, hoſe little Clods are apt to imbody with each other; and ey appropriate to a ſandy Soil an Intermixture of Cow-ung, which is fat and binding. They endeavour by theſe xpedients to give Conſiſtence to the one, and Rarefaction the other, which is a very judicious and profitable Pro-eeding.

Manures.

Thoſe Proprietors of Land, who are induſtrious, have ecourſe to a Method ſtill more efficacious and durable in its ffects, ſince it ſtrikes at the Cauſe of the Evil. They open e Ground to a certain Depth, either in their Garden or me adjoining Spot, and endeavour to find a Bed of Earth ntirely different in its Qualities from the Land they would ectify. They intermix and thicken a dry and ſandy Soil ith a proper Quantity of Mould, or at leaſt with a marſhy arth, which is frequently no more than a black and bind-ng Loam. But they open and diſunite a marley Earth, y mixing it with a large Quantity either of River-Sand, or f that which is found in ſubterranean Veins of Gravel. When the Earths are thus blended together, they are thrown nto Heaps, till the different Ingredients have had Time to ncorporate in a proper Manner. The Beams of the Sun, he Winds and Froſts, together with the conſtant Action of he Air, will compleat the Preparation of the whole, and we may then plant in a Soil entirely new.

But as we acquire our Knowledge by very imperfect Degrees, and may be eaſily deceived in the Choice of a Soil, which appeared to us ſufficiently qualified to improve our own Land; it will be prudent to make the firſt Experiments on a ſmall Quantity of Earth, till we are ſatisfied, by very apparent Succeſs, that our Endeavours to meliorate the whole will not be ineffectual.

As to other Circumſtances, whether you intend to fertilize all the Ground of your Kitchen-Garden by theſe Intermixtures; or whether you limit your Improvements to ſome particular Squares, or the Trenches you appropriate to your

Trees; the two eſſential Points are your permitting the blended Soils to lie fallow, a Year at leaſt, before you begin to plant; and your compleating the Mixture not in a parſimonious Manner but to the Depth of three or four Feet: Otherwiſe your Trees and ſeveral Species even of your Herbage, will inevitably periſh, when their Roots begin to penetrate into another Vein of Earth, which will wound them by its unpliant Coheſion, or parch them up by its Dryneſs.

Chevalier. I am ſenſible that, if the Soils be intermixed to the Depth you have mentioned, the good Qualities of the one will reform the Imperfections of the other: But ſurely this muſt occaſion a dreadful Expence.

Prior. If the Garden-Plot be very extenſive, the Attempt will certainly prove too chargeable; but there are other Expedients to rectify Part of its Defects at a very moderate Coſt. If the Soil, for Inſtance, be groſs and difficult to be moved, or ſpungy to an extreme Degree, the ſquare Compartments of the Garden ſhould be a little raiſed towards the Middle, and ſunk at the Extremities into two imperceptible Slopes; by which Means the Water that would chill the Beds, were it to remain upon them too long, flows off toward the Alleys, and may ſink into ſuch a Drain as will convey it to the Ditch that bounds the Garden.

When the Soil happens to be dry and porous, the ſquare Beds ſhould be ſunk a little lower than the Alleys, or it may be ſufficient to raiſe the Paths higher than the Beds, in order to ſecure them a proper Humidity in every Part, and to afford the Herbs and Roots the Refreſhment of due Waterings.

But whatever may be the Nature of the Land, we find an excellent Effect from clearing the Alleys of their Snow in the Winter-Seaſon, and throwing it on the Beds, whoſe Fertility is greatly improved by this Method.

Chevalier. Are there any Soils incapable of being render'd fruitful?

Prior. There are two Sorts, which it would be better to abandon entirely, than riſk the Expence of a Kitchen-Garden upon them. Theſe are the ſtony and the chalky Soils.

Next to the Temperament of the Earth, which undoubtedly merits the firſt Attention, ſince it is chiefly conducive to the Plenty and Flavour of the Productions of an

Olitory, no Circumſtance is more important than the Situation: And this may properly be ſaid to be good, when it ſhelters the Garden from incommoding Winds, and lays it open to that Aſpect of the Sun which is moſt beneficial.

Chevalier. Are not all Winds injurious in Proportion to their Violence? How then are their fatal Effects to be evaded?

Prior. We at leaſt ſhould endeavour to be ſheltered from thoſe that are moſt pernicious; I mean the *Northern* Blaſts, or thoſe of the *North-Weſt*, and all tempeſtuous Winds. We may ſay of the firſt of theſe, what the Scripture declares with relation to a victorious People, whom God in his Wrath cauſed to march forth: * *The Land is as the Garden of* Eden *before them, and behind them a deſolate Wilderneſs.* The Country was a verdant Paradiſe before their Approach, but was rendered a dreary Deſert by their Paſſage through it. The Breath of the *North-Weſt* is not ſo deſtructive as that of the *North-Eaſt* Wind, but it checks every Plant that begins to bloom, and its Diſcontinuance is frequently preceded by a Tempeſt of Hail, which in a few Moments lays waſte all the luxuriant Promiſes of the Spring.

Tho' theſe two Winds are commonly the moſt malignant of all, yet there are others to be dreaded in every Situation we can poſſibly chuſe: We ought therefore to conſider thoſe particular Quarters which are productive of the moſt dangerous Blaſts; and eſpecially the Quarters which engender ſuch Storms as ſtrip the Trees of their Fruits.

Chevalier. Of what Advantage is a Knowledge of this Nature? We may eaſily diſtinguiſh the Region from whence the Winds blow, but how can we prevent their Effects?

Prior A Kitchen-Garden may be defended from the Inſults of thoſe Winds that are moſt to be feared; either by a lofty Wall, or a ſpecious Edifice, or we may cauſe theſe Blaſts to be intercepted by a large Wood which breaks all their Force; and this is the Expedient practiſed in *Normandy* and *Britany*: Or elſe we may form the Kitchen-Garden under the Shelter of a Hill, which ſhuts up all Avenues to it.

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* *Joel.* ii. 3. Quaſi Hortus voluptatis coram eo, & poſt illum ſolitudo deſerti.

The Benefit of a fine Sun-ſhine is as much to be deſired for ſuch a Garden, as the noxious Winds are to be dreaded. A Situation to the *South* is generally the moſt eligible of any, unleſs your Land be extremely light and thin; for it will then be exhauſted by too much Heat. An Opening to the *Eaſt* is likewiſe more eſteemed than one to the *Weſt*, but a *Northern* Aſpect is the worſt of all, if it be not recompenſed by an excellent Temperament of Soil.

Chevalier. I doubt a Plot of Land entirely expoſed to the cold Winds will never produce any thing good.

Prior. We, however, ſee ſome Inſtances to the contrary; the admirable Wine of *Sillery* grows on the Declivity of *Verzenai*, which ſlopes to the *North*, without the leaſt Shelter, and lies obliquely to the Sun.

Chevalier. What you have obſerved, Sir, of the Situation of a Garden in general, may certainly be ſaid of each particular Wall. The beſt Eſpaliers, therefore, are thoſe which are viſited by a *Southern* Sun; and next to this Situation we approve of a Wall placed to the *Eaſt*. Be ſo good as to inform me, Sir, to what Trees theſe Expoſures are appropriated: I have ſometimes ſeen Peaches and Pears that have been rather ſcorched than ripened, in a Poſition to the *South*.

Prior. A *Southern* Eſpalier is reſerved for Winter Bonchrêtiens, Muſcadine Grapes, and all thoſe Fruits that are not eaſily ripened. A Wall that fronts the riſing Sun is more proper for Peaches, Apricots, and ſome Species of exquiſite and tender Pears, whoſe Colour we have an Inclination to heighten. A *Weſtern* Expoſure has likewiſe its Merit, but a *Northern* is the leaſt favourable of all, for the Sun, even in the longeſt Days, can only viſit that Quarter with a few ſcattered Rays diveſted of their genial Warmth.

Chevalier. His Lordſhip, the Count, gave me an Opportunity of obſerving that he had made every Wall in his Kitchen-Garden acceſſible to the Sun. Inſtead of cauſing the four Walls directly to front the four Quarters of the World, he oppoſed to thoſe Regions the four Corners that join the Walls. In conſequence of which Diſpoſition the riſing Sun warms the two Eſpaliers that unite in the *Weſtern* Point; when he gains his Noon-day Height, he ſheds his Heat along the two Walls that join to the *North*; and when he ſinks to the *Weſt*, he darts his Rays on the Walls that point to the *Eaſt*.

Prior. All the Parts of the Garden therefore receive his benign Impreſſions, and every Wall is covered with a uniform Verdure.

As the extraordinary Benefit, that reſults from proper Expoſures, peculiarly relates to the Eſpaliers, Care ſhould be taken to ſtrengthen the Reflection of the Sun-beams by a very white and ſmooth Parget, which exactly cloſes all the Cavities that would otherwiſe imbibe or deflect the Light.

Chevalier. The ſame Expedient chaſes away Rats, Mice, Dormice, and all noxious Animals, and compels them to ſearch elſewhere for their Prey. I muſt now, Sir, deſire you to inform me, what particular Wood is uſed for the Lattice-Work which ſuſtains the Eſpalier, and beautifies the whole Garden.

Prior. The Heart of Oak or Cheſnut is appropriated to this Uſe, and the whole ought to be well joined and preſerved from putrifying, by being painted firſt with a Lay of white Lead, aud afterward with two Lays of Mountain-Green liquified into an Oil. Such a Lattice-Work as this will laſt between thirty and forty Years.

Chevalier. By that Means, Sir, could you form the Eſpaliers of your Priory into ſuch an elegant Air, without the Aid of Lattice-Work?

Prior. I had Recourſe to the ſame Expedient which is now practiſed by ſeveral Perſons of Taſte. Inſtead of the Lattice of Wood-work, which frequently affords a Retreat to a Number of Enemies, we may form a Lattice of large Wires, which proves as ſerviceable and laſting as the other, and is compleated at a very moderate Expence.

Chevalier. As I look through the Bars of the Door that opens into the Melon-Ground, I obſerve the Top of the Walls covered, through their whole Extent, with a kind of little Roof, of whoſe Uſe I am entirely ignorant.

Prior. A Gentleman of the Army, who has long made the Cultivation of Fruits his Amuſement, amidſt his Solitude in Times of Peace, and whoſe extraordinary Succeſs renders him worthy to be recommended as a Model, has added to the Parget and Lattice-Work ſuch a kind of Pent-houſe as is raiſed upon that Wall, and its Function is to compleat the Efficacy of good Situations. Several ſmall Bars of Iron or Wood about two Foot long, are inſerted horizontally into the upper part of the Wall, and at a regular Diſtance from each other, in order to ſupport one or two Planks, which are to be removed whenever we are diſpoſed to afford the Leaves a proper Refreſhment of Rains and Dews. This Roof, by intercepting the Action of the Air above, prevents the Tree from ſhooting that way with any extraordinary Vigour, and cauſes it to expand to the Right and Left. It likewiſe effectually covers the Eſpaliers during the ſevere Froſts, and ſhelters the Buds and Fruits from the Inclemency of Hail-Showers. In a word, it preſerves the upper Part of the Tree from the Drippings of the Wall, which, by falling perpetually on the ſame Branches, either rot or hollow them, and cauſe a glutinous Fluid to be ſhed over them.

The Diſtribution of the Plot.

When the Poſitions and Incloſures have been properly regulated, the Diſtribution of the whole Plot is the next Circumſtance to be conſidered. It may be divided into two, four, or ſix Squares, formed with Cut-work, and ſurrounded by large Alleys. But, inſtead of theſe ſquare Diviſions, the whole may be parcelled out into four Triangles, ſeparated by two Alleys that correſpond with the Figure of St. *Andrew's* Croſs. The Centre is adorned either with a pleaſing Fountain, or the ample Round of a Baſon.

We think it natural to behold a very ſpacious Alley when we firſt advance into the Garden, and, if the Entrance be exactly in the Middle, which is moſt regular, the Diſtribution into Squares will then ſeem neceſſary, in order to preſent a fine Alley in Front, and another in a tranſverſe Line, to the View of thoſe who enter. If we are obliged to place the Entrance into the Kitchen-Garden in ſome Corner, we may then have recourſe to the croſs Diviſion, that we may enjoy at our firſt Approach the ſudden Proſpect of three Alleys: namely, thoſe that run parallel with the two Walls, and that which traverſes the Triangles. But ſince the Extremity of theſe Pieces would disfigure the Ground-Plot by their pointed Forms, we uſually bend them into a Semicircle, which enlarges the Place, and gives the Entrance a more graceful Air.

Chevalier. I am very much ſurprized to ſee a Diſtance of ſeven or eight Feet left between the Walls and the Border of the Alleys.

Prior. That Vacancy is intended for the Cultivation of ſeveral forward Plants of different Kinds, in a Shelter from injurious Air, and beneath the Reflection of the Sun-beams; and the beneficial Effects of the Compoſt, the Culture, and the frequently repeated Waterings are always imparted to the Roots of the adjoining Fruit Trees.

Chevalier. I imagined this Tract of Ground had been entirely loſt; but I now perceive you can employ it to a double Advantage.

Prior. Let us return to the Squares. The Border that ſurrounds them, and in which ſeveral buſhy Dwarf-Trees are diſpoſed, is adjuſted by the Verge of the Alley on the one Side; and on the other, by the Track which limits the Beds that are formed in the inward Space of thoſe Squares.

Chevalier. I ſee the Dwarf-Trees are planted at a conſiderable Diſtance from the Verge of the Alley, and very near the Beds in the Square; but would not they have produced a better Effect, if they had been diſpoſed exactly in the Middle of their own Bed?

Prior. They are ranged at the Diſtance of five Feet from the Verge, that the Branches may not encroach upon the Alley when they are expanded into their full Growth; and as to the Track next the Square it may be then ſtruck farther in by diminiſhing the Length of the Beds, which are bounded by it.

Chevalier. I have ſeen ſome fine Kitchen-Gardens, where the large Pieces were edged with Lines of Box; but all the Borders in this Garden are compoſed of uſeful Plants.

Prior. There is ſome Œconomy in this Method. The Growth of Box fills up a Space of Ground to little Purpoſe: It is likewiſe a voracious Plant, and requires much Tending. Are not theſe Borders therefore garniſhed to more Advantage with Plants that are uſeful, and afford us proper Ingredients for Sallads, or at leaſt are valuable for their Scents, or ſome medicinal Quality they poſſeſs? Here you may ſee a long File of Terragon, and there a Range of Lavender is ſtretched out. One Alley may be bordered with Parſley, and another with ſweet Baſil or ſalutary Wormword, or fragrant Marjoram. Sage and Savoury frequently riſe in one Line, and Pimpernel blooms in the ſame Bed with odorous Thime. Borders are likewiſe formed of Strawberry Plants, and Violets may have the ſame Diſtribution, in order to accommodate us with a Syrup in their proper Seaſon.

Thoſe Alleys that are leaſt neceſſary are ſometimes ornamented with Turf, or a Verdure of Strawberry-Trees. A croſs Alley, that is but little frequented, may be embelliſhed by a Line of double Hollyhocks running through the middle; and in ſome other Walk of the like Nature you may plant Poppies, and rear the Seeds of the Anemone, the Ranunculus, the Violet, and Stockgilliflower. Theſe unexpenſive Foreſts of Flowers will beautify a uſeleſs Plot of Land, at the ſame time that they are a Seminary for the Parterre.

The Ground that forms the Squares ſhould be diſtributed into Beds four Feet in Breadth, and ſeparated from each other by a Foot-wide Path. Such a Diſpoſition enables the Gardener to extend his Hand to the Middle of each Bed, and to cultivate the whole Plantation without any Difficulty.

Chevalier. At a little Diſtance from this Garden is a Spot of Ground, which the Gardener has appropriated to ſeveral Species of eſculent Plants; but the Beds are formed in a manner that ſeemed entirely new to me; they riſe very high on one Side, and deſcend in an eaſy Slope on the other. What may be the Advantage of ſuch a Diſpoſition?

Prior. They are properly called Shelving Beds; and you may obſerve their Aſcent is to the North, and their Declivity to the South. I will now acquaint you with their Uſe. If the Land be too moiſt or cold, and eſpecially if it lies open to bleak Winds, this Method of diſpoſing the Beds in a Slant is very commodious, but too much neglected at preſent. As this Figure is uniform through the whole Extent of the Beds, it is intirely inoffenſive to the Eye; and as the Water muſt unavoidably trickle into the Path, the Beds will conſequently be rendered more dry. The ſhelving Form of the Earth qualifies the Surface for receiving the Sun-beams almoſt in a perpendicular Direction, which ſtrengthens the Reflection, and redoubles the Heat. A third Advantage, and which perhaps is ſuperior to the other two is, that the rapid Sweep of Hail and North-Eaſt Winds being conſiderably weaken'd by the back part of theſe elevated Beds, will be leſs prejudicial to the Plants, which lie concealed from Inſult on the deſcending Side. Theſe ſlanting Beds are an Imitation of the vaſt Garden of Nature, where the Almighty Hand, that diſpenſes Vegetation and Growth to Plants, has ranged them on Hills and Declivities at due Intervals of Diſtance, that the ſolar Rays may be reflected with more Vigour upon the green Productions, which without this benign Aid would ſeldom advance to Maturity in the temperate Climes.

Water.

But as advantageous ſoever as the Diſpoſition of your Garden in all its Parts may prove, it will be impoſſible for you to fertilize the Whole, unleſs you have a commodious Supply of Water, that can always be diſtributed through every Quarter of the Garden.

Spring-Water.

Chevalier. How delightful is it to be able, as in this Place, to diffuſe with one Turn of a Cock the Stream of a limpid Spring to the Sideboard, the Kitchen, the Baſon in the Parterre, and the Ciſterns in the Olitory!

River-Water.

Well-Water.

Prior. Though this kind of Water, when it has ſettled, and been warm'd by the Air, is render'd very fit to facilitate the Progreſs of the Sap in Plants, I ſhould have as much Eſteem at leaſt for River-Water, which as it conſtantly receives the volatile Salts, and other Influences of the Air, muſt needs be very ſalutary to Plants. Well-Water is the worſt of all, becauſe its Chillneſs is apt to prove fatal to the Roots; and a Gardener ſhould be very cautious of employing it till he has firſt expoſed it to the Air.

Chevalier. Do you approve the Uſe of Ciſterns?

Ciſterns.

Prior. Ciſtern-Water is only a Collection of Rain, and is extremely light. It may even be render'd a very wholeſome Drink, when we are capable of preſerving it in its due Purity.

But whether there be a ſufficient Supply of other Water, or not, it is certainly a good Precaution to ſink a Ciſtern in thoſe Terraſſes, on which it is uſual to build fine rural Seats for the Benefit of a ſalutary Air and an open Proſpect. A large Ciſtern will collect in an Inſtant all the Water that has been ſhed upon your Building, and poured into your

Courts by a tranſient Storm; and it always accommodates you with a Reſervoir in caſe of Fire. It is likewiſe a certain Reſource, when a dry Seaſon has exhauſted the Wells and Springs, and it proves an admirable Fluid for Watering of Plants. The Slime and nitrous Particles which are ſwept by the Water from the Roof and other Parts of the Habitation, ſink to the bottom of the Ciſtern, and form a Sediment which the Gardener prefers to all kinds of Compoſt and Manures whatever, with reſpect to fortifying the Plants that thrive, or re-animating thoſe that droop.

The Choice of Trees.

Theſe Preparations qualify the Ground for the Reception of the young Plant, with which you propoſe to embelliſh it. But you muſt be very circumſpect in this Particular, leſt you ſhould happen to be deceived in the Purchaſe of your Trees, and be obliged to wait ſeven or eight Years for the Fruit of a Pear-Tree, which muſt afterward be rooted up.

Chevalier. Are there not ſome few Marks by which we may know the Species, before we ſee the Fruit?

Prior. There are ſeveral Species which reſemble each other ſo much in their Wood and Foliage, that they frequently deceive the moſt ſkilful Perſons. We can never be too diffident of the preſuming Ignorance of diſhoneſt Gardeners, as well as of the Miſtakes of thoſe who have the greateſt Probity, and likewiſe of the Abuſe that reigns in the Names of Fruit-Trees. What the *Perſians* call the Queen *Claudia* is known by the Name of the Green Apricot at *Tours*; at *Roan* it is the Gay Green, and at *Vitri* * the Dauphin Plumb. The ſame Diverſity prevails with reſpect to other Fruits, and they are frequently called by different Names in Gardens of the ſame Neighbourhood.

Chevalier. At this Rate indeed we can never know what we buy; but is there no Remedy for ſuch an Inconvenience?

Prior. The beſt Courſe we can take, will be to lay out our Money in thoſe Places that are moſt in Repute, and to xplain ourſelves in ſuch a manner as may prevent all Equiocation. We ſhould afterwards be early in grafting, in a urſery, a great Number of thoſe Species that are moſt pproved. It is likewiſe a ſafe Expedient to depoſit ſome f the fineſt Plants of the Nurſery, in Wicker-Baſkets, in rder to be replaced in the Room of thoſe whoſe Decay ould interrupt that agreable Order and Succeſſion of ruits which you may be deſirous of ſecuring.

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* A Village a League diſtant from *Paris*, and famous for the fineſt Nurſeries in *France*.

Chevalier. When we deſign to plant Eſpaliers and Dwarf-Trees, what particular Space ſhould be left between them? here obſerve, that all the Trees are twice as diſtant from ach other, as they are in any other Place that I have een.

Prior. This Diſpoſition has been obſerved, becauſe the Temperament of the Soil is excellent; had it been lean, and not very fertil, the Trees would have been planted nearer to each other.

Chevalier. I ſhould think the contrary Practice would be moſt proper; for why ſhould we expect the Earth to be moſt fertil when it has leaſt Nouriſhment to impart?

Prior. I will firſt give you the Particulars of the preſent Method, and then acquaint you with the Reaſons for purſuing it.

A low Wall.

When we plant againſt a low Wall of about ſeven or eight Feet in Height, the Trees are diſpoſed at a much greater diſtance from each other, than they are againſt a higher Wall, that ſo they may be expanded without any Confuſion, and to afford them on each Side the Enjoyment of that Liberty which is denied them at the Top.

A high Wall.

When the Wall is twelve or fifteen Feet high, the Plantation may be ſet thicker, by placing a Dwarf-Tree between two other Trees of a larger Growth, which will embelliſh the Wall, and render every Part of it profitable.

But no Circumſtance is ſo proper to determine the juſt Diſtance of the Trees, as the Temperament of the Soil. If the Wall be low, and the Ground very good, the Pear and Peach Tree ſhould be planted at the Diſtance of nine Feet from one another; and as the Apricot and Plumb-Trees ſhoot into a more luxuriant Growth, their Interval ſhould be twelve Feet. If the Soil be but indifferent, the Space between them ought to be leſs by three Feet; ſo that thoſe of the firſt Claſs ſhould grow within ſix Feet of each other, and thoſe of the ſecond within nine. If the Wall be lofty, and the Soil excellent, the tall and ſhort Stocks are ſeparated by a Width of ſix Feet; but if the Ground be not extraordinary, they may be planted thicker, and four Feet will be a ſufficient Extent for the intermediate Space.

Chevalier. I am impatient to know the Reaſon of this Method.

Prior. It is this: The Fruits generally ſpring from little weak Branches, which die for the moſt part at the Expiration of a few Years. The ſtrong and vigorous Branches run all into Wood, and their Fruit is too ſmall to be valuable. If your Trees lengthen their Roots in an excellent Soil, and are only allowed a ſmall Space for the Expanſion of their Branches, you will be obliged to lop theſe, to prevent their encroaching upon the Boughs of the neighbouring Eſpaliers. This Contraction of their Growth will render them exceeding vigorous, but it will likewiſe cauſe them to run into Wood; whereas when they extend themſelves in their natural manner, they ſhoot out a Profuſion of little Branches proper for bearing Fruit. The Eſpaliers expand but little in a lean or indifferent Soil, and therefore they ought to be planted cloſer to each other.

We are not confined to ſo much Strictneſs in the Diſpoſition of Dwarfs, and the Diſtance between them may be very moderate in a rich Soil; becauſe they are not branched out on two Sides only, like the Eſpaliers, but ſwell into a round Circumference.

Chevalier. Do you approve of the Method of extending the Branches of Vines along the Tops of Walls, and above the Eſpaliers?

Prior. When theſe laſt are young, the Vine may very properly fill the Vacancy, in order to refreſh you with its Fruit, as well as with its Verdure.

Chevalier. I obſerve, when Perſons are preparing to plant, they always ſink very deep Trenches; and I ſhould be glad to know, Sir, what Rule they follow in that Particular?

Preparations for Planting.

Prior. The Gardeners, when they are to plant Eſpaliers, begin with opening a Trench ſix Feet wide, and three in depth, along the Extent of the Wall. But when they plant Dwarfs, the Trench ſhould be eight Feet in breath, with the Former Depth, unleſs it be continued from one End of the Garden to the other.

Chevalier. Do theſe Dwarfs require a larger Quantity of good Soil than the Eſpaliers? Or for what Reaſon are they allowed eight Feet in the Breadth of their Trenches?

Prior. The Eſpalier, which is faſtened to the Wall, deflects its Roots from it, and requires an Extent of ſix Feet, in order to ſhoot them out on the other Side: But the Dwarf, which is placed in the middle of the Trench, has not more than four Feet of good Earth on either Side for the Accommodation of its Roots; and were the Breadth of the Trench leſs, the Roots would plunge too ſoon into a bad Earth.

If the Earth, which is dug out of the Trench, happens to be good, it ought to be inverted when it is thrown in; but if it be only indifferent, the Trench ſhould be filled up with other Earth that has been prepared for ſome Time.

Chevalier. One would wiſh to be certain of a good Soil for Planting.

Prior. The next Circumſtance to be regulated is the proper Treatment of the Roots and Branches of the intended Plantation. Trees extend their Roots under the Earth, that by the Mediation of their Fibres they may imbibe the Water, which, together with the Salt, contains the Oil and other Principles of their Nouriſhment. They extend their Branches at the ſame time into another Fluid, which is the Air, that they may be impregnated, and chiefly by the Inſtrumentality of their Leaves, with the freſh Streams and volatile Spirits that are conſtantly floating in it. The Leaves therefore render the ſame Offices to the Branches, as the Roots receive from the Fibres. And hence it follows, that if you tranſplant a Tree with the Earth that adheres to its Roots, as is daily practiſed at preſent, you may leave all or part of its Foliage upon it. The Leaves are one of the beſt Expedients for recruiting the Tree with the Humidity it loſt in the Day-time, by Tranſpiration; and poſſibly, for diffuſing to the Extremity of the Roots a Warmth, as well as a Stream of Air, whoſe Action and Elaſticity may give Motion to the Sap. It is evident by Experience, that the Leaves which are left on the Tree contribute to the Invigoration of its Roots, and the Speedineſs of its Growth. But if the Roots have been uncovered, and diveſted of the Earth with which they were ſurrounded, the Tree is then too weak to nouriſh all the Branches after its Tranſplantation: And it would be of no Conſequence to leave its Foilage, which will be all ſhed in a few Days. It will be neceſſary therefore to lop off the Head, or at leaſt to ſhorten all the Branches very conſiderably, that the Root, which at firſt is only employed in repairing its Loſſes, and whoſe Operations are then very languid, may have only Buds to nouriſh, inſtead of Branches; and may be in a Condition to tranſmit them, by Degrees, ſuch a Quantity of Juices as will protrude a ſet of vigorous Sprouts.

Chevalier. But what would be the Conſequence, ſhould all the Branches be kept on the Tree we tranſplant?

Prior. The Sap, being too weak to produce capital Branches, would operate in thoſe of the ſmalleſt Dimenſions, and ſupply them with Fruit the enſuing Year. The Tree might deceive us by its plauſible Appearance; but as it would be unproductive of large Branches, which are its only Reſource, and the Baſis of the Fruit-Branches; it would be incapable of expanding into a Head, and muſt therefore ſhrink to a Minuteneſs, and remain extremely languid, till at laſt it will be neceſſary to root it up. The Practice of lopping off the Head of a Tree, when it is not immediately tranſplanted with its adhering Earth, is not to be conteſted.

The Roots have been formerly conſidered in the ſame manner; and Monſieur *de la Quintinie* is almoſt as ſevere to them, as he is to the Branches. It is with ſome Difficulty that he conſents to leave two or three of them on the Plant; and he limits their largeſt Extent to ten or twelve Inches. This Method of his is ſtill practiſed in many Places.

Chevalier. May we be allowed to deviate from it, ſince he paſſes for an Oracle in Gardening?

Prior. The World undoubtedly has great Obligations to him; but the *Virtuoſi* of the firſt Claſs, and particularly Meſſieurs *le Normand* *, Father and Son, who ſucceeded

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* Memoirs de M. *le Normand*.

Monſieur *de la Quintin'e*, have diſcovered, by a Series of Experiments, repeated with all imaginable Accuracy, that if a Tree be planted with all its ſound Roots, it will thrive much better, and will ſpeedily acquire a Vigour very different from that of its Neighbour, which was planted with a few Roots cut ſhort. And when the contrary has at any Time happen'd, they have always diſcovered an evident Cauſe of this Irregularity, which did not reſult from any Circumſtance of more or leſs Roots.

Chevalier. We ſuſtain no Riſque, when we act upon the Credit of ſuch Authorities.

Prior. We may then conclude, that the ſafeſt Method of tranſplanting Trees is to preſerve all their ſound Roots; and we may likewiſe ſuffer the like fibrous Roots to remain, when they appear freſh and vigorous. When the Roots begin to exert their Functions, they will certainly furniſh more Sap and Aliment, than could be ſupplied, were their Number reduced to two or three. 'Tis Prudence therefore not to pay ſuch an implicit Regard to a Set of difficult and incommodious Rules, as to deſtroy thoſe Roots which are as good as any we can deſire, and to wait a Length of Time for others, while we already poſſeſs thoſe that are ſufficient *.

When the Places for the ſeveral Trees have been marked out and opened, each Plant is laid near the Aperture into which it is afterwards to be inſerted.

Chevalier. Should not the Bottom of every Hollow be covered with ſome Compoſt?

Prior. All judicious Planters entirely diſapprove that Method: For as the Salts of that Manure would be perpetually deſcending below the Roots, they conſequently muſt be uſeleſs to them. And as the Root would be involved in a corrupting Sediment, they would undoubtedly be endanger'd by that Putrefaction. The Compoſt would likewiſe prevent the Earth from binding about the Roots ſo cloſely as it ought, and would form large Vacuities by the Diſſipation of its own Subſtance; by which Means the fibrous Roots would languiſh, for want of a proper Soil to faſten upon. But the Affair is different with Reſpect to

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* Stultum eſt amittere radices quas habemus, ut acquiramus novas. *Theoph.*

Litter and other Manures that are diſpoſed round the Stem of the Tree, and above the Surface of the Earth; for them the Salts and Juices deſcend in a beneficial manner to the Roots of the young Plant; and the Compoſt ſo placed is often rendered a neceſſary Covering to ſecure the tender Tree from the immoderate Penetration of Froſt, and the Breath of ſcorching Winds, which would be fatal to it in the very firſt Heats.

Chevalier. It were to be wiſhed this Compoſt had a more agreeable Appearance in a Garden.

Prior. It is uſually covered over with a thin Surface of Earth, which conceals its Deformities.

Chevalier. What Seaſon is ſet apart for Planting?

The Seaſon for Planting.

Prior. Every one declines it, when the Earth is impregnated with too much Rain, becauſe it is then apt to conſolidate about the Roots, which renders them incapable of ſhooting their Fibres into ſo impliant a Maſs. The uſual Seaſon for Planting continues from the Beginning of *November* to the Middle of *March*. In lean Soils the Month of *November* is thought proper for planting, that the Trees may continue to ſhoot their Fibres, and gain ſome Advance during the remainder of *Autumn*. But in a ſtrong Soil, where an immoderate Humidity would be injurious to the young Tree in the Depth of Winter, Planting is deferr'd to the Month of *February*, or even to *March*. One of theſe two Seaſons is likewiſe choſen for tranſplanting unfruitful Trees, and they have frequently been render'd fertil by a mere Change of Situation; which is a Circumſtance that favours a Surmiſe I always entertain'd, that the Diminution of the Quantity, and the impetuous Flow of the Sap, accommodates its Operations more effectually to the ſmalleſt Branches, where the Fruit-Buds are lodged.

The moſt eſſential Circumſtance in tranſplanting, and eſpecially great Trees, is to render the Earth very compact, and to form it round the Roots with the Hand thro' their whole Extent. The Water, which is poured upon it, when the Gardeners plant in the Spring-Seaſon, dilutes the Soil, and cauſes it to deſcend and enfold the Roots; but when they plant in Autumn, they are diſcharged from the Labour of Watering, by the Winter-Seaſon, which will always be ſufficiently liberal in that Particular.

THE APPENDAGES TO AN OLITORY.

DIALOGUE VII.

The COUNT. *The* CHEVALIER.

Count. THESE, my dear *Chevalier*, are the Memoirs the Prior hath ſent us for our Entertainment, while he is obliged to be abſent for a few Days.

Chevalier. I ſee they relate to grafting and pruning of Trees; and as this is a Work already compleated to my Hands, I ſhall add it to the Papers that contain my former Remarks.

Count. We will have the Pleaſure of reading it together: But before we proceed to the Cultivation of Trees and eſculent Plants, I would acquaint you with ſome Appendages that are neceſſary to an Olitory, to aid it in its Functions, and to preſerve its Productions. Have the Fruit-Garden, the Orchard, the Nurſery, and the ſeveral Sorts of Green-Houſes been deſcribed to you?

Chevalier. I only know them by Name.

The Fruit-Garden.

Count. Let us begin with the Fruit-Garden. It frequently happens, that the Walls of the Olitory are far from being ſufficient for all the favourable Expoſures that may be neceſſary. Thoſe Fruits which are ripen'd with Difficulty are not the only Productions that need the Eſpalier: The Peach, without that Aſſiſtance, would neither be ſhaped nor coloured as we could wiſh. The moſt excellent Species of Pears, as the Beurre, the Burgamot-Craſane, the Saint-Germain, the Virgoleuſe, and ſeveral others, are too large to be fully expoſed to the Wind, becauſe they will fall with the leaſt Shock. Early Cherries, White Primordian, and Violet Perdrigon-Plumbs, will only thrive on Eſpaliers.

In order to ſecure a Quantity and Succeſſion of thoſe Fruits we are deſirous to obtain, it will be proper to reſerve a Piece of Ground, like this before us, on one Side of the Olitory, and where the Appearance of Regularity is altogether unneceſſary. It ſhould be choſen with an Aſpect to the *Eaſt* or the *South*, and ſinking, if poſſible, into a gentle Declivity. Several little Walls muſt be raiſed ſeven or eight Feet in Height, and which, in Conjunction with the general Encloſure, will form Poſitions of all Kinds. They ought likewiſe to be ſo near each other, as to concenter a glowing Heat, and at the ſame Time to be diſpoſed at ſuch a mutual Diſtance as will prevent them from ſhading each other. The additional Conveniencies of ſhelving Roofs, and Coverings of Straw, will eaſily preſerve the Fruits from chilling Froſts and Storms of Hail; and we may be certain of gathering all Sorts of Fruits of a moſt engaging Beauty, and even in thoſe Years when a Dearth reigns in every other Part.

The Orchard.

The Orchard is the ſecond Appendage to an Olitory; and we may take a Walk in this, if you are ſo diſpoſed, Sir.

Chevalier. As ruſtic as it appears, I think it exceedingly agreeable; but if the Fruit-Garden be ſuch a ſure Revenue, what ſhould prevent it from being enlarged, ſince it would certainly be preferable to an Orchard?

Count. The Orchard is appropriated to thoſe large Trees which we can't conveniently be without; and the Generality of Fruits appear more amiable, and are enriched with finer Flavours, when they grow naturally in the open Air, and on Trees of lofty Stems; whether a free Circulation of Air be moſt advantageous to them, or that the Sap of a Tree which has never been pruned, by being diſtributed into a greater Number of Branches of all Dimenſions, aids their Fertility, and produces a Growth of more delicate Fruit. But as the lofty Trees, which we have ſo much reaſon to multiply, are commonly productive of bad Effects in an Olitory, where their Shade may be injurious to the Herbage and Eſpaliers, they are conſigned to the Orchard, where we generally plant thoſe Pears that are much eſteemed for their melting Pulp, and would be apt to grow mealy and inſipid on an Eſpalier, for want of a free Current of Air. Such, for Inſtance, are the Dean's Pears, the Beſy de la Motte, and the Green Sugar-Pear.

We likewiſe conſign to the Orchard all thoſe Pears, whoſe immoderate Size preſerves them from being injured by bluſtering Winds; and Pear-Trees ſucceed better in that Situation, than when they are contracted into Dwarfs, or diſpoſed along the Eſpalier. The *Neapolitan* Medlar, the Filberd, and ſome Mulberry-Trees, have alſo their Places aſſigned them in the Orchard, to furniſh us with Variety in each Seaſon.

Chevalier. I wiſh your Lordſhip would inform me, why the Arrangement of the Trees is interrupted toward the End of the Orchard, where I obſerve a multitude of Plants crowded thick together?

Count. You are looking upon the Nurſery, whoſe Function is to recruit the Orchard, the Fruit-Garden, and the Olitory. We there raiſe a numerous Progeny of young Plants, which are reſerved to ſupply whatever we are obliged to root up in any other Part. Some of theſe Plants are propagated from the Kernels, or Stones of Fruits; and though, when they are advanced in their Growths, their Productions may be excellent, they will yet be ſomething wild in their Nature; and we ſhall find it neceſſary to reform them by the Graft. Others have been raiſed from Shoots, or Slips cut from wild Stocks in the Woods, and whoſe Fruits have a harſh Flavour. A third ſort are the wild Stocks themſelves, improved by Grafting, in the manner you will find de-

The Nurſery.

ſcribed in your Memoirs. The Generality of theſe laſt are earthed in Baſkets; but do you know for what Reaſon, Sir?

Chevalier. I think I recollect it, my Lord. It is in order to have a Tree ready formed, and in a Condition to be tranſplanted into the Place of one that is decayed; by which Means the Vacancy may be filled without any Delay, and we are in no Danger of being deceived. But I ſhould be glad to know whether the Choice of a Tract of Ground for the Nurſery require any peculiar Attention?

Count. If the Soil ſhould happen to be lean and unſubſtantial, its Productions will be weak and languiſhing, and their Indiſpoſition can never be remedied. On the other hand, it ought not to be extremely rich, or manured to any conſiderable Degree; and its Quality ſhould be a Medium between thoſe Extremes. It ought to be inferior in ſome degree to the Soil, into which the young Trees are afterward to be tranſplanted, that the Tranſition from one to the other, which is apt to impair them, may be ſpeedily retrieved by the Goodneſs of a new Aliment, and that they may not degenerate by paſſing from a good Soil, to one that is leſs ſo.

While the young Plants are in the Nurſery, they are confined to a contracted Space, and muſt be governed by very ſtrict Rules. They are diſpoſed in Lines three Feet diſtant from each other; but the youngeſt are planted ſtill cloſer, that we may be as ſparing of the Ground as poſſible, and likewiſe that we may invigorate their Stems, by not permitting their Foliage to expand in full Liberty. When they are habituated, by the Conſtraint of this firſt Culture, to the Form we propoſed to give them, they are allowed a more honourable Rank among Trees of an advanced Growth; and inſtead of languiſhing when they leave their ſoft Situation, they are ſeen to improve immediately after their Tranſplantation from the Nurſery, and then experience the Advantage of a free Air and a good Eſtabliſhment.

I believe it will now be proper for us to turn back toward the Houſe.

Chevalier. Your Lordſhip makes our Walk a little of the ſhorteſt To-day.

Count. I have no Intention to leave you as yet, Sir, but am willing to let you ſee the different Repoſitories that are neceſſary to preſerve the Productions of the Olitory. The firſt that occurs to us on this Occaſion is the Fruitery. Several Expedients have been reſorted to for the Preſervation of Fruits as long as poſſible; and I believe there are Secrets for the Accompliſhment of that Deſign: But till ſome Perſon ſhall pleaſe to favour us with the Diſcovery, if they indeed be real, we muſt content ourſelves with the Fruitery, as the beſt Contrivance we have at preſent, for the Preſervation of our Fruits through all the Months of the Winter-Seaſon, in which they were intended to regale us. You are ſenſible that they ripen ſucceſſively in the Place where we ſtore them.

The Fruitery.

Chevalier. By what Means can a Fruit, which no longer grows on the Tree, acquire any better Qualities than what it received from the Soil and Sun-ſhine?

Count. It does not require any thing new, and the Maturity it obtains in the Store-Room is only a Modification of what it already enjoys. I fancy I can account for the Cauſe. The Fruit continues to be impregnated with ſeveral Particles of Air, which operate by their elaſtic Power, and their Efficacy is very conſiderable, when they are either compreſſed or expanded in Proportion to their being affected by the Impreſſions of the external Air; but their Efforts are very languid, when they ceaſe to communicate with the Atmoſphere without. The Air which is incloſed in the Fruit muſt neceſſarily act upon the Sap, whoſe Coheſion it breaks by Degrees, and occaſions a perfect intermixture of the Salts and Oils; after which it ſmooths off the jagged Points of the one, by the ſoft Occurſions of the other, and produces in Time a Flavour which is neither poignant nor inſipid, but an agreeable Combination of Sweetneſs and Acidity, which conſtitutes the Perfection of the Fruit. When this Period is once paſt, the palatable Parts of the Fruit are diſſipated by inſenſible Evaporations; and what remains is only a groſs Subſtance fit for nothing but to be thrown away. In order therefore that Nature's Care, to enrich the Winter with different Degrees and Succeſſions of Ripeneſs in the Fruits, ſhe reſerves for that Seaſon, may not be rendered ineffectual, we find it neceſſary to prepare a Repoſitory, to ſecure them from the Impreſſions of the external Air, which, as we are ſenſible by Experience, is too precipitate in compleating their Maturity, and cauſes them too ſuddenly to exhale the fine Particles that ſupplied them with their delicate Flavour.

Chevalier. The Fruitery then muſt needs be ſhut up as cloſe as an Ice-Houſe.

Count. It ought to be furniſhed with ſubſtantial Walls to render it uſeful; and it ſhould neither be in a Granary, where the Air is abundantly too cold, nor in a Cellar, where it is as much too moiſt; but it ought to be in a dry Place, where the Floor ſhould be even with the Ground, and the Windows turned to the *South*: There ſhould likewiſe be good Shutters and double Doors, beſides which, a double Fold of Curtains ſhould be drawn round the Room; otherwiſe the Humidity will rot one Part of the Fruit, and the Froſt decay the other. I have cauſed mine to be furniſhed with large wooden Preſſes, for the better Security of the Fruit, and they have ſucceeded perfectly well. The uſual Cuſtom, is to have Shelves boarded with a Ledge, to prevent the Fruit from falling. Theſe Shelves are likewiſe diſpoſed in a Slant, which from Time to Time gives a View of all the decayed Fruit, which ought to be thrown away for the Preſervation of the reſt. A Shelf without a Covering is prejudicial to the Fruits, which then are apt to roll againſt each other, and putrify by Contact. They are likewiſe for the moſt part heavy enough to be injured in the Part where they preſs upon the Wood; and, on the other hand, the Straw and Fern, which are uſually ſpread under them, frequently infect them with a diſagreeable Flavour. Sand eaſily impairs them by the Humidity it contracts in the Shade; and nothing has been found ſo ſerviceable, as Moſs gathered from the Stems of Trees, and well beaten, after it has been dried in the Sun. The Fruits ſink gently into a Bed of this Nature, which ſuſtains them with a commodious Softneſs; and we may then viſit and touch them, without any Danger of rolling them upon any other Fruits that are near them.

Chevalier. We preſerve in our Houſe for a conſiderable Time, and even till the Winter be very far advanced, all Sorts of fine Pears, by wrapping them up in Sheets of thick Paper twiſted over the Stalks. The Fruit is then ranged on Hurdles, in order to preſerve it from Air and Moiſture.

Count. This is certainly a very good Expedient, and it preſerved me a Parcel of Virgoleuſe Pears about a Month ago.

Chevalier. Will your Lordſhip be ſo good as to let me know the Uſe of thoſe Bags that are hung up in the Middle of the Fruitery?

Count. They are different Parcels of Seeds which will be uſed in the remaining Part of the Spring, and likewiſe in the Summer-Seaſon. The Name of the Seed is inſcribed on each Pacquet, and the whole may by recurred to without any Confuſion.

The Repoſitory for Herbs, *&c.*

A ſecond Repoſitory, and altogether as uſeful as the other, is that where we preſerve our Roots and eſculent Plants. This is uſually a vaulted Cellar, the Avenues and Spiracles of which are exactly cloſed up, during the Seaſons of Froſt and Humidity. The Winter Herbs and Roots are preſerved in Beds of Sand, which cauſe Celery and Endive to whiten and enlarge their Growth. We may even raiſe a Vegetation of Muſhrooms on thoſe Beds, which, being intermixed with Manures that have been expoſed to the Air, generally contain ſeveral of the imperceptible Seeds of Muſhrooms, which have been wafted by the Wind into a Variety of Situations.

Chevalier. This may be properly called a Winter-Garden.

Count. We there can imitate the Favours of the Spring, and we likewiſe prolong thoſe of Autumn as much as poſſible.

The Green-Houſe.

A third Repoſitory is the Green-Houſe, where, during the Winter-Seaſon, we lodge our Orange, Pomegranate and Fig-Trees, together with Laurels, and all the uſual fruitful or flowering Shrubs that abhor the Cold. Theſe Plants correſpond very well with the Air of our Climate; and it is ſufficient if the Green-Houſe be well cloſed and turned to the South, in order to receive the Warmth of the Sun through the glazed Windows, and even to admit the Air from Time to Time, when its Gales are ſoft and favourable.

Chevalier. Would not a Chimney be commodious in the Green-Houſe, when the Winter happens to prove ſevere?

Count. Neither that nor a Stove would be proper. The coldeſt Air would deſcend through the Vents of the Chimney and freeze ſome Plants, while others near the Fire, would be ſcorched. The Sparks might even ſet Fire to the Boxes of Plants, and the Mats that are hung upon the Walls to preſerve them from Humidity. The Smoke which would almoſt be inevitable, is extremely injurious to all Verdure, and frequently to the Plant itſelf. In a word, there is no Equality in this Method, for ſhould the Fire decay or be extinguiſhed, the Plants which have then opened all their Pores to a Warmth that refreſhed them, will be more obnoxious to the Severity of Froſts, than they would had they been left without any Fire at all. The ſureſt Expedient therefore, is to keep the whole Place well cloſed up from the external Air, and to cover the Windows with double Lays of Straw when the Cold is very violent *.

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* The Tranſlator thought it neceſſary to acquaint the Reader with the Sentiments of the ingenious Mr. *Miller*, with Relation to Green-Houſes; and the following Paſſage, which is tranſcribed from his Gardener's Dictionary, will not be unacceptable to the Candid and Judicious, tho' it happens to differ in ſome Particulars from our excellent *French* Author.

Under the Floor, *(of the Green-Houſe)* about two Feet from the Front, I would adviſe a Flue of about ten Inches in width, and two Feet deep to be carried the whole Length of the Houſe, and it may be returned along the back Part, and be carried up in proper Funnels adjoining to the Tool-Houſe, by which the Smoke may paſs off. The Fire-Place may be contrived at one End of the Houſe; and the Door at which the Fuel is put in, as alſo the *Aſh*-grate, may be contrived to open into the Tool-Houſe, that ſo it may be quite hid from the Sight and be in the dry; and the Fuel may be laid in the ſame Place whereby it will be always ready for Uſe.

I ſuppoſe many People will be ſurpriſed to ſee me direct the making of Flues under a *Green-Houſe* which have been diſuſed ſo long, and by moſt People thought of ill Conſequence; as indeed they have often proved, when under the Direction of unſkilful Managers, who have thought it neceſſary, whenever the Weather was cold, to make Fires therein. But however injurious Flues have been under ſuch Miſmanagement, yet, when ſkilfully managed, they are of very great Service: For tho' perhaps it may happen that there will be no Neceſſity to make any Fires in them for two or three Years together, as when the Winters prove mild there will not, yet in very hard Winters they will be extremely uſeful to keep out the Froſt, which cannot be effected any other Way, but with great Trouble and Difficulty.

Withinſide of the Windows in Front of the *Green-Houſe*, you ſhould have good ſtrong Shutters, which ſhould be made with Hinges to fold back, that ſo they may fall quite cloſe to the Piers, that the Rays of the Sun may not be obſtructed thereby: Theſe Shutters need not to be above an Inch thick or little more, which, if made to join cloſe, will be ſufficient

Chevalier. I have ſeen a Stove uſed in a Green-Houſe at *Verſailles.*

Count. That, Sir, is a fourth Species of Conſervatories, and only fit for thoſe Perſons who are extremely rich and curious, or for Gardeners, who can make the Profits of it a Compenſation for the Expence.

An equal Degree of Heat is preſerved in it for ſix or ſeven Months, by the Aid of Stoves placed in the Middle, and at the Extremities of the Building. This Green-Houſe ſhould entirely front the South, and if it be formed into a Semicircle, it will concenter the Heat of the Sun from Morn to Evening, better than if it were diſpoſed in a ſtrait Line.

The Walls ſhould be thick to prevent the Penetration of Cold, and it will be neceſſary to have them white-waſhed within, the better to reflect the Light that colours and enlivens the Plants. The Structure is but of a moderate Height, that the Body of Air to be heated may not be too conſiderable; and its Depth is narrow, that the Sun-beams may play upon the back Wall.

ſufficient to keep out our common Froſt; and when the Weather is ſo cold as to endanger freezing in the Houſe, it is but making a Fire in your Flue, which will effectually prevent it: And without this Conveniency it will be very troubleſome, as I have often ſeen, where Perſons have been obliged to nail Mats before the Windows, or to ſtuff the hollow Space between the Shutters and the Glaſs with Straw; which, when done, is commonly ſuffered to remain till the Froſt goes away; which, if it ſhould continue very long, the keeping the *Green-Houſe* ſo cloſely ſhut up will prove very injurions to the Plants. And as it frequently happens that we have an Hour or two of the Sunſhine in the Middle of the Day in continued Froſts, which are of great Service to Plants, when they can enjoy the Rays thereof through the Glaſſes, ſo when there is nothing more to do than to open the Shutters, which may be performed in a very ſhort Time, and ſoon ſhut again when the Sun is clouded, the Plants may have the Benefit thereof whenever it appears; whereas, where there is ſo much Trouble to uncover, and as much to cover again, it would take up the whole Time in uncovering and ſhutting them up, and thereby the Advantage of the Sun's Influence would be loſt. Beſides, where there is ſo much Trouble required to keep out the Froſt, it will be a great Chance if it be not neglected by the Gardener; for if he be not as fond of preſerving his Plants, and as much in Love with them as his Maſter, this Labour will be thought too great by him: And if he does take the Pains to cover the Glaſſes up with Mats, *&c.* he will not care to take them away again until the Weather alters, ſo that the Plants will be ſhut up cloſe during the whole Continuance of the Froſt. *Miller's* Gardener's Dictionary. Article, *Green-Houſe.*

All the Southern Front ought to be a Range of Windows, accompanied with ſtrong Curtains, and with as few Piers as poſſible, that the whole may be equally cloſed, and equally preſented to the Sun, without any Interruption of Shade.

The Funnels of the Stove are carried along the inſide Length of the Walls, but the Stoves are ſupplied with Fuel from without, and are built in the Subſtance of the Maſonry, ſo that neither Fire, Sparkles or Smoak, can have any Admiſſion within.

In order to warm the internal Air in a ſure and regular Manner, it will be proper to erect over the Stove a little Chamber or kind of Furnace, which ſhould be filled with Flints, and ought to communicate with the outward Air by the Intervention of a Tube, and with the interior Air of the Green-Houſe by another Canal. The Stream of external Air, which is admitted into the Furnace, becomes hot by its Continuance there, and likewiſe by its flowing over the burning Flints, after which it is diſtributed through the Conſervatory in ſuch Quantities as are judged proper by turning a Cock. The Influx of Air is adjuſted by the Thermometer; in Conſequence of which, any Exceſs of Heat is corrected by the Admiſſion of as much cool Air as is thought neceſſary; by which Means the whole Place may enjoy ſuch a Temperament of Air, as correſponds in a great Meaſure with the genial Warmth of the fine Days in Summer.

At a little Diſtance from this Place I have contrived a Green-Houſe in Miniature; and, inſtead of a ſolid Building with a pompous Saſh-work in Iron Frames, I contented myſelf with beſtowing Maſonry on the Northern Part, while the three other Sides and the Roof are compoſed of ſtrong wooden Frames painted in Oil.

You may there ſee the Stove which is ſupplied with Fuel from without; but, inſtead of having recourſe to this, or to any work of Maſonry, we may form a Lodge of Glaſs-Saſhes over a Bed of Earth. The whole may be covered with Mats, when neceſſary, and at other Seaſons it may enjoy the Sunſhine through the Glaſs, which will confine the Warmth to it for a conſiderable Time.

Chevalier. I am ſurprized beyond Expreſſion; for I diſcover through the Saſhes ſeveral Cluſters of Grapes already formed, though the Vine be not yet in its Bloom.

Count. Let us walk into this Conſervatory, and take a view of its Curioſities. The firſt Uſe of this Place is to preſerve thoſe exotic Plants that are incapable of ſuſtaining the Severity of our Air, in a common Green-Houſe. You may obſerve ſome Plants of this nature which I have collected with Care. I have the *Torch-Thiſtle*, the *Euphorbium*, the *Coffee-Tree*, the *Fig-Marygold* *, the *Aloe*, the *Pine-Apple*, and ſome *Balm-Trees*.

The ſecond Function of the Green-Houſe with a Stove is to furniſh us with Novelties, ſuch as beautiful Flowers and ripe Fruit, much ſooner than their common Seaſon. For inſtance, we extend into the Green-Houſe two or three of the fineſt Branches of a Vine, whoſe Stock is planted without; and when the exterior part of the Vine begins to bloom at the cloſe of *May*, or in *June*, the Green Grapes, which you obſerve within, will be black, and ripe enough for eating. This Expedient enabled me to entertain you to day at Dinner, with a Plate of Figs that received your Approbation.

Chevalier. And yet it will be two or three Months before we ſhall gather them in their natural Seaſon, for they are never ripe till *July*.

Count. When the Froſt begins to check the ſecond Growth of Figs, in *September*, I intend to ſhelter the Tree in the Conſervatory, and we may poſſibly prolong the Enjoyment of this Fruit to the End of Autumn.

The Fruits that are here produced are frequently aided by the Aſpect of the Sun, and the Influence of the Air; and they regale us with a very agreeable Flavour. The Flowers likewiſe, that ſpring in the ſame Situation, refreſh the View with Colours of a lively Glow. The Induſtry, by which we are accommodated with theſe Novelties, has been tranſmitted to the Gardeners by the Curious. It is no longer an unfertil Amuſement, but redounds to the Advantage of the Publick.

Chevalier. Does not your Lordſhip take this Method of Culture to be a Force upon Nature?

Count. No, Sir, it rather aids her in her Operations. When our Plants are ſcorched by immoderate Heat, we refreſh them with frequent Waterings; and Nature ſuffers no Compulſion by this Proceeding. On the other hand, when they are chilled by Froſt, we recall them to Life by a redoubled Warmth, transfuſed through Glaſs Bells and Saſhes; and Nature is no more forced by this Method than ſhe is by the other.

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* Ficoides.

Chevalier. I obſerve another little Piece of Building joined to the Side of the Green-Houſe.

Count. The Gardener there depoſits all his Tools and Implements, as well as the Springes, Traps, Scare-Crows, and other Inſtruments of Hoſtility, which he employs againſt the Enemies of his Labours.

Chevalier. Will your Lordſhip permit me to deſtroy the Worms, and Snails, and Caterpillers, with all the other Inſects that infeſt the Garden?

Count. That will be undertaking a very conſiderable Affair, Sir.

Chevalier. I ſhall acquit myſelf in a punctual Manner; for nothing more is neceſſary, than to leave the Garden to the Care of a few Lapwings, or Plovers, after the large Feathers have been plucked from their Wings; your Lordſhip will ſee them employed, from Morning to Night, in keeping the Gardens neat as poſſible.

Count. Your Obſervation is juſt, Sir: I had ſome of theſe Creatures for ſeveral Years paſt, and they really performed Wonders; but I have been deprived of theſe Servants by Birds of Prey.

Chevalier. I know a Gentleman who takes even a better Method than this. He has a Breed of Domeſtic Storks, that were ſent to him from *Germany*, and they are diſpoſed in a Neſt which is fixed in the Middle of a Veſſel, formed with two Iron Hoops, and placed on a Pedeſtal, faſtened to the Top of the Turret where the Weather-Cock turns. The Storks are attentive to all that paſſes below; and, as their Sight is very penetrating, they diſcover the Motions of a Dormouſe, the Labours of a Mole, the Gliding of a Snake, and the Trip of a Lizard; upon which they immediately dart upon them, and they always train up their Young to the ſame Hoſtilities.

Count. Theſe Birds will take off Abundance of Trouble from the Perſon who entertains them.

Thus have I acquainted you, my dear *Chevalier*, with the firſt general Principles that will enable you to form a Garden, in a proper Manner; let us now proceed to the Method of ſhaping a Tree; and, if you pleaſe, we will ſeat ourſelves in this Place, while you read over the Memoirs you have received from the Prior.

Chevalier. I will begin with the firſt that occurs.

Obſervations on GRAFTING.

OF all the Operations in Gardening, there are none but what are honourable in their Nature, and amuſing to the Imagination; but thoſe that are moſt worthy of our Curioſity are Grafting and Pruning. The former is the eaſier of the two, but we muſt likewiſe allow it to be the moſt aſtoniſhing. Pruning is indeed more difficult, but it certainly conſtitutes the real Merit of a Gardener.

Grafting is performed in ſeven or eight different Manners, a juſt Idea of which will be ſufficient at firſt; and we may reſerve for the practic Part a particular detail of each Precaution, neceſſary to be obſerved in that Branch of this Science.

Cleft-Grafting.

The moſt ancient Manner of Grafting is performed, firſt, by lopping off all the Head of a Tree, or only one of the main Branches; ſecondly, by cleaving the Stock with a ſtrong Knife, which ought to be driven in with a Mallet; thirdly, by opening the Cleft to ſome Depth by Means of a Wedge; and, laſtly, by inſerting into the Stock a Branch cut from a Tree of a kindly Nature, and impregnated with at leaſt three good Buds, which are ſo many Knots or Tumors; each of which enfolds a little Pacquet of Leaves. The Extremity of the Graft ſhould be cut ſmooth and even on both Sides; after which it ought to be placed in the Cleft in ſuch a manner, that the Bark of one of its Sides, at leaſt, may eaſily coincide with the Bark of the Stock that receives it.

This * Diſpoſition is abſolutely neceſſary, becauſe the Incorporation of the Graft with the Stock is accompliſhed by the mutual Union of their fine Barks. This Bark is compoſed of ſeveral thin Rinds, or Films, drawn in Circles over each other, and the firſt Round is diſengaged from the reſt in Spring; at which Time it ſwells into a more ſubſtantial Texture, and forms the new Circle of Wood which is annually acquired by the Tree. The Fibres that conſtitute the inward Rind of the fine Bark being cut in thoſe Parts where the Stock and Scion are joined, the Orifices of the one open into thoſe of the other; in conſequence whereof, the callous Subſtance, which is there formed, unites ſeveral Canals of the Trunk with thoſe of the Graft. Other Canals are interwoven with each other, and the two Films ſo different in their Natures are conſolidated into one Subſtance. But when this Conjunction is not accompliſhed, under the fine Texture of Rind, it muſt never be expected, either in the Wood already formed, and which then ceaſes to be ſupple, or in the groſs Bark, which is altogether as impliant as the Wood.

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* Philoſophical Tranſactions, abridg'd by *Lowthorp*, Vol. II. p. 675.

When the Inſertion is compleated, the Cleft ſhould be covered with Chips of Bark, in ſuch a manner as to exclude all Penetrations from without. This Covering of Bark ſhould be coated over with a Compoſition of Wax and Pitch melted together, or a Mixture of Clay, with a ſmall quantity of Straw; and the whole muſt be ſwathed over with Cloth, to prevent the Admiſſion of Rains, and parching Air. This is what we call Grafting in a Cleft.

Croſs-Grafting.

The firſt Cleft may be croſſed or traverſed by a ſecond, in order to inſert four Scions inſtead of one; but Care muſt always be taken to unite the Bark of the Scion with that of the Stock. This is called Croſs-Grafting, but the Operation is the ſame with the other.

Crown-Grafting.

If the Trunk be too thick ſo as to create juſt Apprehenſions of its being too much ſhocked by opening a Cleft, the ſurrounding Bark muſt then be ſeparated from the Wood, in ſeveral Parts, by the Inſertion of a ſmall Wedge; after which we may ſink into the open'd Circumference eight or ten Grafts, each of which ſhould have four or five good Buds, and their Extremities are to be ſhaped and flatted in ſuch a manner as will beſt adapt them to their ſeveral Apertures. The whole muſt be covered over like the Graft in Cleft; and this is what we call Crown-Grafting *.

Sometimes, inſtead of inſerting the Scions into a Cleft, or between the Wood and Bark of large Stocks, an Inciſion

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* It is likewiſe called Shoulder-Grafting, and Grafting in the Rind. The Appellation of Crown-Grafting is given it, becauſe the Grafts are ſet in form of a Circle or Crown.

ſion of ſome Depth is made with a Joiner's Chiſſel in the Bark, and likewiſe in the Wood; and when the Piece is taken out, the End of the Graft muſt be exactly adjuſted to the Cavity, by which means the two Barks acquire an intimate Conjunction; and this is called *Whip-Grafting.* Theſe three Operations, the firſt of which is moſt in uſe, are performed in the Months of *March* and *April*, when the Sap begins to riſe in a copious Flow.

Whip-Grafting.

Two Branches are ſometimes choſen in the Month of *May*, one growing on a wild Stock, and the other on a Tree of a kindly Nature, and they ſhould both be exactly of the ſame Thickneſs. Each of them is left on its proper Stem, and it will be neceſſary to ſhorten both: after which, the Gardener makes a circular Inciſion in the good Branch, and pares off a little Tube or Ring of Bark, which will be of a ſufficient Length, if it contains two good Buds. The wild Branch muſt be diveſted of its Bark, and while the Wood continues moiſt, it muſt be inſerted into the hollow Tube which encloſes it like its native Bark. The Extremity of this Inſertion may be covered with tempered Clay, or thin Chips rolled into a circular Bandage upon the Edge of the Bark. This Operation is called *Flute-Grafting*, becauſe it reſembles the uſual Practiſe of Children, who, in the Seaſon when the Sap riſes, ſtrip the Bark from a Branch, in order to form it into a Flute; and it is appropriated in a more particular manner to Cheſnut and Fig-Trees.

Flute-Grafting.

The fifth manner of Grafting is more generally practiſed upon Stone-Fruits; and this Operation is performed by cutting from a good Tree a ſmall triangular Piece of the Bark, whoſe Length muſt a little exceed its Breadth, and in the middle of which, the firſt Appearance of a Branch, with the Traces of one or two Buds ſhould be ſeen. In paring off this Bark it is uſual to ſlide the Blade of the Pruning-Knife under it, in order to cut the little Knot, if that ſhould be neceſſary, together with a ſmall Quantity of the Wood: not that this laſt can be for any Advantage in cauſing the Graft to take, but this Precaution is uſed to prevent any Hazard of miſſing the Knot, and we may be certain it is ſecure when it adheres to the Bark; but if it ſhould

Eſcutcheon-Grafting, or Inoculation.

ſhould be ſeparated from it, no Bud will be found. This Knot is the whole future Tree in little.

The Perſon employed in this Operation holds the triangular Bark in his Mouth by the Extremity of the little Branch, to prevent the Saliva from being detrimental to the Sap; and at the ſame Inſtant makes an Inciſion, in the Form of a T, in ſome ſmooth Part of the wild Stock or Tree that is to be meliorated: After which he raiſes and removes the Lips of the upper Aperture with the flat End of the Handle of his Pruning-Knife, and then ſlips in the triangular Bark, cauſing its longeſt Point to deſcend, till it arrives at the Bottom of the T, and is covered on every Part except the Bud, which is ſuffered to project outward. Some Gardeners have made ſucceſsful Attempts to inoculate in another manner. They apply the triangular Bark of a kindly Nature to the Bark of a wild Stock, and cut in this latter another Triangle of the very ſame Dimenſions with the other; after which they raiſe it up, and remove it from its place, and then inſert the other Bark, which contains the Eye or Branch of the better Species.

The Barks are gently treated, and qualified for uniting with each other, by binding them with ſeveral Rounds of Worſted, and then the Whole is compleated. Worſted is preferable to hempen Thread, which is too inflexible, and prevents the Bark from dilating with due Freedom. This is called Eſcutcheon-Grafting, becauſe the pointed triangular Bark very much reſembles the Shield of our ancient Knights; and, in order to ſucceed more effectually, inſtead of a ſingle Eſcutcheon, it is uſual to inſert one on each of the two oppoſite Sides of the Tree.

Permit me, my Lord, to diſcontinue my Reading, while I inform myſelf, from your Lordſhip, whether this Obſervation agreed with *Virgil*. I find, by the *Prior's* Account, that a ſmooth Part of the Bark ſhould be choſen for the Inſertion of the Shield-Graft; whereas *Virgil* declares in his *Georgics*, which I have lately read, that the Surface of the Bark ſhould project in ſeveral Knots, and that the Aperture ought to be formed in the Middle of one of theſe *.

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* —— qua ſe medio trudunt de cortice gemmæ,
Et tenues rumpunt Tunicas, anguſtus in ipſo
Fit nodo ſinus; huc aliena ex arbore germen
Includunt, udoque docent inoleſcere libro. *Georg.* 2.

Amidſt the Bark, where the emerging Gem
Rends its ſoft Foldage, and ſurmounts the Stem,
In the firm Knot a ſlender Channel ſunk
Receives a Bud from ſome ſelected Trunk;
Rears its young Charge, and from its humid Womb,
Imparts the Vitals of its future Bloom.

Count. *Virgil*, like all the Gardeners of his Time, thought this Precaution neceſſary: but Reaſon and Experience have now convinced us of its Inefficacy. It is not the Knot of the wild Stock, but that of the Graft, which is to be the Agent in the Production of a new Tree; for which Reaſon it is altogether unneceſſary to perform the Operation on the Knot of that wild Stock.

Chevalier. I now return to my Memoirs.

Shoot-Grafting.

If the Inoculation be performed in the Summer Seaſon, when the Tree is impregnated with a copious Sap, it is cuſtomary to cut off the Head of the wild Stock, four or five Fingers above the Eſcutcheon, that the Sap may flow over it, and promote its proper Operation: This ſmall Remainder of the wild Stock is likewiſe left above the Place of Inoculation, to prevent the Sap from ſuffocating the Graft, and that it may be diſtributed among a Set of other Buds, whoſe Number may be leſſened at pleaſure; and this is diſtinguiſhed by the Name of Shoot-Grafting.

The Dormant-Graft.

When the Inoculation is deferred to the Month of *Auguſt*, or the Autumn-Seaſon, it will then be improper to accelerate the Graft, and therefore it is permitted to be dormant, or at leaſt to act in a languid manner; in order to which the Head of the Tree is not lopt off till the ſucceeding Spring, when the Sap will be renovated and give Indications of Life. This Practice has the Appellation of *Dormant-Graft*, and theſe two laſt manners of Grafting are always the ſame as the Eſcutcheon.

Grafting by Approach.

A ſixth Method of Grafting, and which is only practicable on two Trees that riſe at a little Diſtance from each other, is performed by opening a Cleft in a Branch of a Tree we diſlike, in order to inſert into it the End of a good Branch which is ſuffered to continue on its proper Stock; and the Wound ſhould be covered with Wax and a Bandage of Linen Cloth. It is cuſtomary to wait a reaſonable Time, in order to be certain that the two little Portions of Bark are incorporated into one Subſtance; the good Branch is then ſever'd from its Stem, to diveſt it of the Sap it would otherwiſe derive from its Parent-Tree, and that it may be ſuſtained by the Aliment it imbibes from the Stock into which it is inſerted, and which is diveſted of its own Wood, that it may derive a new Head from the grafted Branch. This Operation is called *Grafting by Approach*, or *Ablactation**, and is much practiſed on Trees reared in Boxes, which may be placed as near to each other as we pleaſe.

It has been the Opinion of ſome learned Men, that the Circulation of the Sap in Plants is performed like that of Blood in the Bodies of Animals, through a Syſtem of Canals, in which a Number of Valves are open to afford a free Current to the Fluid that impels them; after which they cloſe up the Paſſage to prevent its Return. It may be difficult to diſprove the Aſcent and Reflux of the Sap; but the Succeſs of Grafting by Approach ſeems to demonſtrate, that there are not any Valves in the Channels of Sap, ſince it flows, without the leaſt Obſtruction, into the inverted Graft. Theſe Ducts therefore of the Sap are a Set of capillary Veſſels, through which that Fluid aſcends, in what Poſition ſoever they are preſented to it.

Grafting by Approach may likewiſe by accompliſhed by other Methods. Inſtead, for Inſtance, of inſerting the End of one Branch into the Cleft of another, they are capable of being united by an exact Coincidence of two ſmall Inciſions, perfectly correſponding with each other, and cut in the two ſelected Branches. Theſe may be croſſed over each other, or bound together at their Extremities, after they have been cut, in ſuch a manner as the one may lie exactly over the other. It is not material in what manner they are joined, provided the inward Bark of the Graft touches the interior Bark of the Stock. When their Union is compleated, the Sap, by ſwelling the Veſſels of the external Bark, will form a Tumour around it, which will inſenſibly cover the Wound. The good Branch may then be ſeparated from the Mother-Plant, and there is this Advantake in Grafting by Approach, that the two Branches equally contribute to the Incorporation, by the reciprocal Concourſe of their Sap.

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* It is likewiſe called *Inarching*.

Root-Grafting.

The *Engliſh* and *Dutch* have lately had Recourſe to a Method which has not as yet been eſtabliſhed among us. It conſiſts in Grafting a fine fruitful Branch upon a Stock of Roots; to which Effect they chuſe one of the large Roots of a Tree, whoſe Nature correſponds with that from whence the Graft is to be taken. The * Root is cut into ſeveral Diviſions, in each of which a Graft is inſerted, agreeable to ſome of the preceding Operations. When a Tree happens to be vigorous, you may take from it a Root large enough to furniſh twenty or thirty Stocks; and if the Practice of Root-Grafting were authorized by ſufficient Experiments, and had been advanced to a Certainty of Succeſs, we might at once plant a Root and its Graft in the Place where the Tree itſelf ſhould grow; whereas in all the former Operations, there is commonly a long Interval of Time between Grafting and Tranſplanting.

A Tree may likewiſe be grafted on its own Stock, in Conformity to ſome of the Methods already repreſented; and when one of its Branches has been inſerted into its Trunk, you may likewiſe graft one of its Shoots upon that Branch, and the Fruit will acquire a finer Degree of Delicacy, tho' I am unable to account for the Cauſe.

It is not ſufficient to underſtand the Art of Grafting, and to be capable of adapting the propereſt Method to each † Plant: The Article of the greateſt Importance is to know what Stock is moſt agreeable to each Graft; but the whole may be referred to very ſimple Principles.

The Manner of Grafting Pears.

Pears are grafted either on Stocks of their own kind ‡, or on a Quince-Tree. Thoſe Grafts, that are intended to be fully expoſed to the Wind, ſhould be inſerted into a vigorous Stock, which by penetrating very deep into the drieſt Soil, ſecures its Roots from being injured by the Drought that reigns about the Surface.

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* The Art of Husbandry, by *J. Mortimer.*

† Memoirs de M. *le Normand.*

‡ Theſe the Gardeners call Free-ſtocks.

Thoſe Shoots that are to be formed into Dwarf-Trees, or Eſpaliers, ought to be grafted on a Quince-Tree, which ſhoots to a moderate depth of Earth, and ſlides its Roots between two Stratas of Soil; it likewiſe delights in a cultivated Ground, bears in a ſhort ſpace of Time, and produces better Fruit than a Scion grafted on a Free Stock, unleſs it be very old.

Of Apples.

Apples are grafted on a Crab-Tree raiſed from a Slip, or a Kernel; and likewiſe on a Codlin, and Paradiſe Stock.

The Crab-Tree that has been raiſed from a Kernel is a ſlow Plant, but very vigorous, and it lives for a conſiderable Time. It is alſo imployed in the Production of Standard Pear-Trees.

The Paradiſe Stock ſhoots out but a few Roots, and a ſmall quantity of Wood: It is ſoon fruitful, but is not of any long Duration; it is likewiſe formed into Dwarf-Trees, in thoſe Places where the View ought not to be intercepted.

The Codlin-Tree is a juſt Medium between theſe two, with reſpect to its Height and Duration; but is more proper to be ſhaped into a fine Dwarf-Tree. Grafted Apple-Trees ſucceed in Soils that are but indifferent, and where the Pear-Tree would languiſh for want of Humidity.

Cherries.

Cherry-Trees may be grafted with Succeſs, into Stocks of the black, or wild red Cherries. They are commonly inoculated, and before *Midſummer*. The *Neapolitan* Medlar is grafted upon a White Thorn.

Plumbs.

All kinds of Plumbs are propagated either by Cleft-Grafting, or Inoculation on wild Plumb-Stocks, raiſed from Slips, or the Stones of that Fruit.

Apricots and Peaches.

Apricots and Peaches are commonly inoculated either on an Almond, or a Plumb-Tree. The Roots of the former ſhoot very deep in the Earth, but thoſe of the Plumb-Tree never deſcend much below the Surface, and they extend in horizontal Lines: The Grafts therefore are inſerted into Almond Trees, in Soils that are naturally dry and parching; and where the Roots of the Plumb-Tree would be deſtroyed by the Drought: Whereas in moſt Lands, where the Water riſes near the Surface of the Earth, the Peach and Apricot are always grafted on a Plumb-ſtock, becauſe the Roots of the Almond-Tree would, by ſhooting to their uſual Depth, plunge into the Water, which would certainly rot them. It may be proper likewiſe to intimate, on this Occaſion, that an Apricot is much more agreeable when it grows in the open Air; though it thrives with much Security on an Eſpalier, ſituated to the *South* or the *Eaſt*. The Peach requires the ſame Expoſures, eſpecially the *Eaſtern*; and it delights in a warm and light Soil, like the Apricot.

Theſe are the Principles of the Art of Grafting; but the Diverſity of Soils, Poſitions, and Air, in Conjunction with the Knowledge and Experience of each Perſon, may authoriſe ſeveral Exceptions in the practical Part. As to any other Particulars, the Generality of theſe Methods are eaſily put in Execution, and their Succeſs is almoſt infallible: But as ſimple as their ſeveral Operations may be in themſelves, nothing can be more aſtoniſhing than the Effects they produce: Not that I am for raiſing a branching Head of Apples * on a Plane-Tree: or cauſing a Cheſnut Stock to intermix a Vegetation of Beach-maſt with his own Fruit. I would not whiten an Aſh with the Bloſſoms of Pears, nor propagate luxuriant Cluſters of Grapes on a Shrub. These are monſtrous Appearances, inſtead of real Wonders; for as there is not the leaſt Conformity in the Nature of theſe Plants, ſuch inconſiſtent Productions will be the mere Effect of Force; their Juices will be diſagreeable, and the Fruit can only be conſider'd as a barren Novelty. I have an equal Averſion to thoſe fanciful Intermixtures, which ſome curious Perſons are ſolicitous to procure in their Gardens; ſuch, for Inſtance, as a blended Growth of Peaches, Plumbs, and Apricots on an Almond-Tree, and a Variety of different Cherries on one Stock. Theſe Aſſortments are very practicable on Trees, that have any juſt Correſpondence with their Grafts; but my Admiration is created, when I be-

The ſuprifing Effects of Grafting.

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* —— Steriles *Platani* malos geſſêre valentes,
Caſtaneæ fagos, ornuſque incanduit albo
Flore Pyri.

hold a bad Tree ſuddenly meliorated, and a good Tree rendered ſtill more perfect *.

A Plant taken from the Wilds of a Foreſt ſoftens its ſavage Nature, and will ſometimes diveſt itſelf of its Thorns, when it happens to be aſſociated with a domeſtic Plant; and even this will be improved by its Commerce with a better Tree. This laſt will alſo acquire a new degree of Melioration, when we retrench its Foliage, and graft one of its Scions upon its own Stock. I am delighted to behold a Perſon employed, amidſt the Plants of a ſpacious Garden, in reforming, by proper Methods, a Growth of natural Wildings; to ſee him baniſh one particular Species from his Domain, while he affords a favourable Reception to another, and naturalizes none but uſeful Subjects. He cultivates mutual Alliances between his Plants, promotes thoſe Adoptions that unite divided Families, and transfers a Dignity to thoſe that were not conſpicuous in the Community, till then. He refines Ruſticity into Politeneſs, and infuſes a tractable Softneſs into ſavage Diſpoſitions. In a word, our Gardener appears to us with the Air of a Legiſlator, who is ſedulous to civilize a barbarous People.

Count. We will defer the ſecond Memoir to another Reading.

Chevalier. I have a ſtrong Inclination to devote an Apprenticeſhip to the Art of Grafting; and ſhall deſire the Gardener to favour me with his Inſtructions.

Count. Let us return to the Seminary; and as to the Gardener's Office I intend to take it upon myſelf.

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* The Tree, ſtrictly ſpeaking, is not changed: A wild Stock always continues the ſame, and all its own Productions will be wild after its Reception of a Graft. The inſerted Branch likewiſe retains its natural Qualities, but it receives its Nouriſhment from its Union with the wild Stock; and from hence reſults that Growth of good Fruit on a bad Tree, which occaſions us to ſay, the Tree is changed, or render'd perfect.

THE CULTIVATION AND Manner of PRUNING FRUIT-TREES.

DIALOGUE VIII.

The COUNT. *The* PRIOR. *The* CHEVALIER.

Prior. BEFORE the Chevalier places my Memoirs amongſt the reſt of his Collection, I am deſirous of ſubmiting it to your Lordſhip's Judgment.

Obſervations on PRUNING.

Let us quit the Grafting-Knife at preſent, for that which we employ in Pruning; and we will now proceed to this grand Science of the Curious. The proper Method of performing it can only be acquired by repeated Practice, and it opens to us a thouſand Reſources and Expedients, of which an unexperienced Gardener can, at firſt, have no Idea. Let us therefore endeavour to render the Principles of this Art intelligible, ſince they are the Baſis of various Operations.

There are three Claſſes of Fruit-Trees; Standards, Dwarfs, and Eſpaliers; and to theſe I ſhall confine my preſent Obſervations. Counter Eſpaliers, which were raiſed Breaſt-high on a Lattice-Work in the open Air, have been diſcontinued for ſome time. Their Productions are ſeldom perfect, and their Shade is very incommodious to all the adjacent Plot.

Standards.

It is not cuſtomary to prune Standard-Trees, unleſs in their firſt Growth, in order to form the Head, and grace them with a pleaſing Shape.

It muſt be acknowledged, that thoſe Fruits which ripen on Standards, in the open Air, have more palatable Juices than thoſe Productions that are matured by the Sun-Beams, reflected from a Wall; but there is one conſiderable Advantage which attends the manner of raiſing Fruits on Dwarfs and Eſpaliers. The Dwarf-Tree preſerves moſt of the ſalutary Temperament and Fecundity of the free Air. The Eſpalier preſents us with Fruits of a ſuperior Size and Beauty, and preſerves its Gifts in a much better manner. Theſe important Benefits are ſtill enhanced by the Pleaſing Figure of the Tree, and the Air of Regularity diffuſed through the whole Garden; and they eaſily induce us to forget ſome little degrees of Accuracy, which are frequently imperceptible, after all the Pains and Expence that have been employed to procure them.

The Manner of forming a Dwarf-Tree.

The Beauty of a Dwarf-Tree conſiſts in the Lowneſs of its Stem; the circular Expanſe of its Branches; a proper Vacuity in the Middle; a well-proportioned Vaſe; an equal Thickneſs in its Contour, and an Elevation limited to ſix or ſeven Feet. It is ſuffered to enlarge its Circumference with the utmoſt Freedom, but we check it in its Aſcent. It muſt likewiſe maintain a good Correſpondence with it Neighbours, and ſhould never incommode them with any incroaching Shade.

In the firſt Formation of a Dwarf-Tree, its Stem ſhould be cut a little Diſtance from the Ground, by which Means the Sap will be turned back on the Buds it would abandon, were it permitted to aſcend higher. The ſeveral

Branches that compoſe the Vaſe, muſt be extended from the Sides of the Stem; and there are ſome curious Perſons, who diſpoſe their Dwarf-Trees into a very different Shape. They form, for Inſtance, three diſtinct Growths of Stages of Verdure, on the Trunk. The firſt has the greateſt Thickneſs and Expanſion, and the other two riſe one above another in a proportionable Diminution. This Figure has an agreeable Air, and is ſaid to be as productive of Fruit as any other Form.

The Manner of forming an Eſpalier.

In order to train up a fine Eſpalier, the Tree ſhould have a Stem of a middling Height, if its Branches are to ſhoot the Top of the Wall; but it ſhould hardly have any, if the Bottom of the Wall is to be covered with its Spread. A large Number of ſtrong Branches ought to be extended from each of its Sides, and at an Equi-diſtance, in order to form an exact Fan, free from all Vacuity, and without croſſing one another. In a word, it muſt never be permitted to exceed the Dimenſions it ought to acquire.

In order to make the Tree ſuſceptible of this beauteous Form, Care is taken to regulate the Courſe of the Sap, in ſuch a manner as may render its Operations equal on each Side. All uſeleſs and redundant Shoots are retrenched, as well on the fore Part as towards the Bottom of the Stem; and if it be neceſſary to acquieſce with one of the Inconveniencies, either of a Vacancy in the Spread, or the mutual croſſing of the Boughs, the latter is aways preferred, becauſe the croſs Poſition of a Branch is not ſo offenſive to the View as an empty Space.

But as the grateful Air of the Heads is not the only Advantage we endeavour to derive from Pruning, which is more peculiarly calculated to ſecure a compleat Growth of Fruit; it will be proper to obſerve the following Method, which is entirely founded on the Nature and Uſe of different Branches.

Each particular Branch produces others, and the Offſpring of a Mother-Bough become Parents in their Turn. Every Branch that hath been ſhortened by the Pruning-Knife, will ſhoot out a new one, and generally ſeveral towards its Extremity. That which ſprings at the leaſt

Diſtance from the End has commonly the beſt Nouriſhment and the largeſt Dimenſions, which may poſſibly be owing to the Air which operates with more Freedom on that Part of the Tree. The other Boughs that are generated lower on the ſame Branch, and nearer the Stem, are proportionably diminiſhed in Subſtance and Vigour. This is the uſual Proceſs of Nature, and it can never be inverted without a Detriment to the Tree. The Branches that grow different from the manner I have deſcribed are called Branches of falſe Wood.

Branches of falſe Wood.

This Appellation is likewiſe given to a Bough that ſprings from an old Branch, in a Part where no Eyes were obſervable.

Wood-Branches.

The large and ſtrong Branches which form the Head of the Tree are diſtinguiſhed by the Name of Wood-Branches, becauſe they are appointed for the Production of that Subſtance, and are to ſerve as a Baſis to the Leaves and Fruit.

Fruit-Branches.

Thoſe that are weak are called Fruit-Branches, becauſe they are commonly productive of the Buds. There is this Difference between an Eye and a Bud; the Eye is a little pointed Tumour, incloſing a Pacquet of Leaves, and the firſt Rudiments of a Branch: The Bud is a Tumour of a larger Size and a rounder Form, enfolding the Flowers and likewiſe the Fruits that ſucceed them.

If we lop off the lateral Wood, as well as that which grows above the little Fruit-Branch, this will ſoon be rendered vigorous: It will even become a Wood-Branch, and will alſo defraud the Buds of their Suſtenance, inſtead of cauſing them to open. But if this Branch be left growing on another that is vigorous and of ſome Length, the Sap will extend, diſtribute, and refine itſelf to its laſt Perfection in a Profuſion of Leaves; from whence it flows back much better digeſted, and more adapted to enter the infinitely delicate Veſſels of the Buds. The Fruit always periſhes on thoſe Branches that are diveſted of their Foliage; and the fineſt Flavours are imparted by thoſe Trees that are not deprived of any of their Leaves: The Sap likewiſe, in its refluent Paſſage from the Leaves, is ſo moderate in its Quantity, and of ſuch a fine Conſiſtence, that it hardly gives any viſible Enlargement to the Branch that bears the Fruit: This therefore generally dies in the Space of a few Years. Theſe Circumſtances incline me to ſuſpect that the Sap aſcends directly at firſt into the Wood-Branches, and never unfolds and nouriſhes the Fruits till its returning Flow, after it has been refreſhed, ſubtilized, and perfumed in the Leaves. But I only hint at this Proceſs as a Conjecture, on which I will not preſume to lay any Streſs.

Count. You will excuſe me, Sir, if I cannot be entirely of your Opinion in this Particular. I am indeed perſuaded, as well as yourſelf, that the Leaves are nutrimental to the Fruit; nay, their Uſe is ſtill more extenſive; for they afford an Aliment to the Tree and even to its Roots. It is likewiſe true, that as the firſt Juice, which the Heat impels to the Extremity of the Branches, in a rapid Aſcent, is crude and groſs; it is better qualified to lengthen and invigorate the Wood than to open the Buds. I alſo agree, that a moderate Quantity of Sap, by being better digeſted and more intimately blended with the volatile Particles of the Air, is rendered more proper to form the Fruit in a ſhort Time, as is evident by the Fruits themſelves which are pierced with Worms, and raiſed to a ſudden Maturity. Such Obſervations as theſe gave occaſion to the Practice of retrenching ſeveral Roots from a Tree that produces too much Wood, without any Fruit. It is certain that a very copious Sap facilitates a Growth of Wood; and that a moderate Quantity of this Fluid is more productive of Fruit. But I much doubt whether theſe Effects reſult, as you conjecture, from a regular and conſtant Circulation. I have made ſeveral Experiments which demonſtrate the Elevation of the Sap, and have likewiſe made a Number of others which ſufficiently prove its Deſcent: But theſe contrary Motions are alternate, if I am not deceived. The Heat of the Day cauſes the Sap to aſcend in direct and lateral Lines; and it tranſpires thro' the Pores of

The alternate Circulation.

Vegetable Statics, by *S. Hales*, F. R. S. 1727.

the Leaves to ſuch a Degree, as greatly leſſens the Weight of the Tree. At the Return of Night and cool Air the Sap has a contrary Motion. The Leaves, which diſpenſed their Exhalations during the Day, imbibe the Dews and Vapours of the Night, and ſhed the Humidity through their Branches. When the Sap has been recruited and brought to Perfection by the Influence of the Air, it flows back to the Roots; by which Means the Tree and its Fruit repair the Loſſes they ſuſtained by Day, and are agreeably refreſhed. Several curious Perſons have from hence been induced to water not only the Stems of their Eſpaliers and Standard Trees during the Heats, but likewiſe the whole Growth of Leaves; and they have ſucceeded perfectly well. With reſpect to any other Particulars, Sir, as you are not a rigorous Advocate for the conſtant Circulation, I am as moderate with regard to that I call alternate, and ſhall now be glad to be favoured with the reſt of your Memoirs.

Prior. A right Knowledge of the Branches muſt be obtained, in order to render the Sap more beneficial, by retrenching ſuch as are uſeleſs, and by a prudent Management of thoſe that are good. No Regard is paid to a Branch, unleſs it ſhoots from one that was lopt at the laſt Pruning; and we as little eſteem thoſe that ſpring immediately from the Stem or from an old Branch, where ſuch a Production was not expected. We even diſregard that which is produced by a good Branch, contrary to the common Order of Vegetation; and which is large and vigorous, though it be ſituated on the lower Part of the parent Branch; and at the ſame time is ſmall in its extreme Parts. All theſe Shoots are Branches of falſe Wood, and as they are not ſo thriving as the others, it is their common Fate to be lopt off; unleſs it ſhould happen to be foreſeen that they will be neceſſary to fill a future Vacancy, or that they will proſper better than thoſe that grow in the common Order.

Marks for diſtinguiſhing the Branches.

It is not ſufficient to diſtinguiſh the Fruit and Wood-Branches, from thoſe of the falſe Wood that are uſually retrenched; but it is likewiſe neceſſary to have a proper Mark for knowing the good Branches of Fruit and

Wood from thoſe that are bad. This Mark reſults from the Quality of the Eyes and Buds, the Complexion of the Bark, and the Vigour of the Branches. If a Branch be extremely incompact. and has its Eyes but little ſwelled, and very diſtant from one another, it is called a *ragged Branch.* It is remarkable for its faint Complexion; and as it is entirely uſeleſs, it has no Claim to any Favour, and ought to be lopt off.

If a Branch ſwells to a Finger's Thickneſs, and is ſhaped like a Taper, with its Eyes very lank and remote from each other, it is a *voracious Branch*, which drains all the Juices from its Parent in a very unprofitable Manner, and ſhould therefore be cut off. The Wood and Fruit-Branches ought to have their Eyes and Buds well rounded aud plentifully nouriſhed; their Bark ſhould be bright and lively, and their Air vigorous, otherwiſe they are treated with as much Severity as thoſe already mentioned.

When this preliminary Knowledge is acquired, all the Dexterity of Pruning is comprehended in three Particulars; Propriety, Oeconomy, and Precaution. Propriety is requiſite in order to form the Tree into a graceful Shape; Oeconomy is neceſſary for the Diſtribution of the Sap through every Part; and Precaution muſt be employed in the Preparation of thoſe Branches that may afterwards be uſeful.

Propriety is the Method of cultivating the Eſpalier, or Dwarf-Trees, into a perfect Figure; by retrenching all Luxuriancies that introduce Confuſion and Inequality.

Oeconomy conſiſts in an equal Diffuſion of the Sap on every Side, and in Pruning ſometimes long and ſometimes ſhort. Pruning in Length is performed, by leaving ten or twelve Inches in a Wood-Branch: Short Pruning ſuffers no more than two or three Eyes to remain on ſuch a Branch.

Long Pruning is employed on vigorous Trees that are to be rendered fruitful; but if they are pruned ſhort, it will be neceſſary to leave them a large Number of Branches, for the more effectual Diſtribution and Correction of the Sap: And when this happens to be the Intention, Pruning is ſometimes entirely omitted.

Short Pruning is practiſed on weak Trees, eſpecially in their firſt Growth; and we then ſuffer but few of their Branches to remain; becauſe as none of their Productions have yet been perfect, we leave them but little Wood, in hope that their firſt Shoots will prove more vigorous, and contribute to the future Expanſion of a fine Head.

Oeconomy extends its Operations to the whole Tree, and to each of its Branches. Some Retrenchments confine the Fruit to one particular Part, others diffuſe Fertility through all the Plant. When a uſeleſs Branch is ſhorten'd, and cut about the Thickneſs of a Crown-piece above that which ſuſtains it, the Sap, being then obſtructed in its direct Flow, generally cauſes two lateral Fruit Branches to ſhoot forth. When a Tree exhauſts itſelf in Wood, and no longer produces Fruit, or only affords it on one Side, the barren Part muſt be pruned very ſhort; or it may be neceſſary to ſtrike immediately at the Source of the Diſorder. As the whole Quantity of uſeleſs Wood is generated by the exuberant Vigour of the Roots, it is cuſtomary to remove the Earth from theſe in the Spring, and to cut off two or three of the ſtrongeſt, eſpecially on that Side where the Branches are moſt productive of Wood without Fruit. As this Operation renders the Sap leſs redundant, and digeſts it in a better manner, it then ſettles in thoſe Parts through which it flowed before, and gently impregnates thoſe Buds of Fruit, which the Rapidity of its former Courſe, or the Groſſneſs of its Qualities, had cauſed it to abandon. In what manner ſoever this Operation is performed, the Reality of the Fact is evinced by Experience; and we have no better Expedient for producing Fruit on a Tree, or any Part of it, that was unfertil before.

Precaution is altogether as neceſſary as Oeconomy and Propriety; and it conſiſts in forming a previous Judgment of the Branches, and making a diſtant Proviſion for filling up all Vacuities in an expeditious manner. It enables us to ſubſtitute a new Growth, in the Room of thoſe Branches that are either decayed, or which we find it neceſſary to retrench; and it likewiſe teaches us to prefer a Branch of falſe Wood, when it is more beautiful,

tiful, better turned, and ſituated to a greater Advantage than its Companions.

A curious Perſon, by the Aid of theſe Principles, and a few prudent Exceptions, ſuggeſted by Experience, renders his Plants tractable to his Idea of a fine Tree. He commands with the Authority of a Maſter, and meets with a pleaſing Docility through his whole Domain. But, leſt he ſhould be miſtaken in his Conduct, and find Reaſon to believe his Plantation leſs to blame than himſelf, whenever a fine Sun-ſhine invites him to walk in the Winter-Seaſon, he re-viſits the Plants he has pruned; he frequently reviews the Whole, and criticiſes his own Proceeding with the utmoſt Impartiality. He walks with his Pruning-Knife in his Hand, both in Winter and Summer, and meets with a Variety of Circumſtances to rectify.

Chevalier. Though I think I underſtand the greateſt Part of what the Prior has been ſo good as to read, yet I muſt intreat him to oblige me with an Application of his Principles to ſome particular Tree: Each Remark becomes more intelligible, when the Object is preſented to our View. But I am ſurpriſed to hear, at the Concluſion of the Memoirs, that we ought to employ the Winter Seaſon in criticiſing on the Pruning we have beſtowed on our Trees; ſince, if I am rightly informed, Pruning is never practiſed till the Winter is paſt.

The Seaſon for Pruning.

Count. There are ſome Trees, indeed, whoſe Pruning muſt be deferred till all their Parts are put in Motion by the Sap. Such, for Inſtance, are thoſe Plants that ſhoot out an exceſſive Quantity of Wood; and when theſe have been already advanced by the Sap, Pruning weakens them to a proper Degree, and diſpoſes them to yield Fruit. Of this Nature likewiſe are Apricot and Peach Trees, and we may delay their Pruning till the Seaſon of their Bloſſoms, becauſe a ſevere Winter is injurious to ſeveral of their Buds; and when we forbear to prune them till they are in Flower, we may be certain of preſerving no Bloſſoms, but ſuch as have not had their Piſtils impaired by the Froſt.

We may ſafely begin to prune all other Species of Fruit-Trees in general, and even the Vine, immediately upon the Fall of the Leaf; we may likewiſe continue this Operation, at our Leiſure, during the Winter Seaſon; and the Whole will be rendered more proſperous, by not being performed in a precipitate Manner; but if this long and important Work ſhould interfere, at the Beginning of the Spring, with a Number of other Labours, it will be but ill performed itſelf, and will likewiſe cauſe the others to be defective.

Chevalier. Our old Gardener, who believes himſelf very expert in his Profeſſion, has told me, ſeveral Times, that the young Wood is too much endanger'd by being cut, and expoſed to the Froſt, and that it never ought to be pruned till Spring.

Count. This is the uſual Language of a prejudiced Opinion; but we can oppoſe to it the Experience of thoſe * Perſons that are moſt diſtinguiſhed by their Proficiency in this Art. They aſſure us, that Pruning their Trees, and even the Vine, before Winter, and during the Continuance of that Seaſon, has never been attended with the leaſt Inconvenience; but, on the contrary, was productive of the beſt Fertility. If any Detriment is to be apprehended from Pruning in Winter, it has no Relation to the Tree, but only to the Gardener, who perhaps may ſuffer from the Severity of the Cold. But as the Wood is not eaſily cut at that Time, and commonly proves very untractable under the Pruning-Knife, it furniſhes the Gardener with a Pretext for conſulting his own Eaſe, and waiting for a more favourable Seaſon.

Chevalier. I intend to furniſh myſelf with a Set of Grafting and Pruning Knifes as ſoon as poſſible.

Prior. Your Reſolution is very proper, Sir. The Arts have this in common with Virtue, that the Knowledge of them is ſufficient to render us enamoured of their Excellence; but this Knowledge is never to be attained without the practic Part.

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* M. *de la Quintinie* and *le Normand*.

Count. I would likewiſe adviſe you to provide yourſelf with a little Hand Saw, that will claſp like a Knife upon its Haft. With this you are to cut from the Quick all the Stubs or Ends of dead Wood, and may ſaw away the ſtrong and ill-placed Branches, on which the Pruning-Knife would make but little Impreſſion. When you employ this latter, you muſt be always careful to clench your Left Hand ſtrongly upon the Branch you would cut off, and below the Place where you make the Inciſion; otherwiſe you will expoſe it to the Danger of being wounded by the Pruning-Knife. But if ſuch an Accident ſhould happen, a Vine-Leaf will ſtop the Flow of Blood; and the ſofteſt Leaves are the moſt ſerviceable on that Occaſion.

Prior. The Chevalier will hardly charge himſelf with the Management of every Operation in Gardening; and it will be ſufficient for him to preſide over thoſe who perform them. A careful Obſervation of the particular Manner of pruning Dwarf-Trees, Eſpaliers, and other Fruit-Trees, in celebrated Gardens; a frequent Converſation with the Perſons employed in thoſe Works, and a proper Compariſon of their Methods and Principles of Art, will enable him to form a due Judgment of all that is tranſacted upon his own Land, without being a Gardener himſelf. You will, by theſe Means, Sir, become an Inſpector of your own Gardens, and will acquire thoſe juſt Ideas, as will make it neceſſary for all your Workmen to be deſirous of your Approbation, and apprehenſive of your Diſſatisfaction. If you once teach them to reſpect you for your Judgment, you will be always well ſerved.

Chevalier. I own that to be true, Sir; but one muſt firſt be a Soldier in order to make a good Officer.

Count. The Chevalier is determined to furniſh himſelf with a Pruning-Knife, and he ought to be capable of uſing it in a proper Manner. But let him rather be the Superintendant of his Gardens, than engage in every Operation neceſſary to their Culture. I would, however, adviſe him to reſerve for himſelf the Pruning of the two moſt diſtinguiſhed Species; I mean, the Orange and

Fig-Trees; and we may now acquaint him, in few Words, with the right Method of managing them.

The Plantation of ORANGE-TREES.

Chevalier. Is your Lordſhip for a Walk under the Orange-Trees that border the *Engliſh* Parterre?

Count. Very willingly, Sir. Of what Age do you judge the Orange-Trees in thoſe large Boxes to be?

Chevalier. I will gueſs thirty Years at a venture.

The Duration of Orange-Trees.

Count. There is not one in all thoſe two Rows, but what is above a hundred Years old. But I know ſome whoſe Hiſtory will engage your Attention much more than thoſe which I have inherited. An Orange Tree ſeems to be ſtill in its youthful Vigour, and is covered with Flowers after it has been in the Ground for two or three Centuries. And this Truth was demonſtrated by that magnificent Orange-Tree at *Verſailles*, which is called the *Great Bourbon*. It was ſeized, with the Eſtate of the Conſtable of *Bourbon*, in the Year 1523, and was then the fineſt Tree in *France*, and judged to be ſixty or ſeventy Years old, which, added to two hundred and ten, amount to almoſt three hundred Years. There are ſeveral of theſe Trees at *Fontain-bleau*, that were very fine even in the Time of *Francis* I.

The Merit of an Orange Tree.

Prior. This long Duration is a very uncommon Merit at preſent: But nothing can be more ſatisfactory than the Cultivation of a Plant which never diſcontinues the Delight it affords us by its immortal Verdure, if I may be allowed that Expreſſion; and which bears, at the ſame Time, a fragrant Bloom of Flowers, and a Diverſity of Fruits in their Infant-Growth and their full Maturity. It unites the amiable Appearances of ſeveral Seaſons, and the Donations of various Years.

Chevalier. I ſhould think a Growth of Orange Trees not eaſily attainable.

Count. It is far from being ſo difficult as you imagine. We yearly receive from the *Genoeſe*, and Natives of *Provence*, young Orange and Citron-Trees ready grafted;

and theſe will ſuffice for the firſt Stock of your Orange-Plantation, and will likewiſe amuſe you without much Expence. You may augment the Stock in a few Years, if you are ſo diſpoſed, by planting in the Month of *March*, and in a proper Bed, the Seeds of wild and bitter Oranges, which, by the Aid of a Glaſs-Saſh, and due Degrees of Heat, will riſe near two Feet in Height at the End of the firſt Year; and they may be tranſplanted at the Expiration of the ſecond into Pots, in order to be grafted. When your young Plants are once placed in Pots, you may remove them into the Sun-ſhine or Shade as you find it neceſſary; and by theſe means their Growth will be ſoon advanced.

Prior. You will likewiſe be fonder of ſuch Orange-Trees as theſe, than of any others, becauſe you may properly conſider them as Contemporaries of your own Rearing.

The proper Soil for Orange-Trees.

Count. As this fine Tree is not ſo natural to our Provinces, as it is to the Southern Parts of *France*, we muſt quicken the Tardineſs of our Soil with a Compoſition that may cauſe it to correſpond as much as poſſible with the Temperament of warmer Climates. It delights much in a Soil mixt with Sheeps-Dung that has reſted two Years; old Compoſt, or the Soil of a Sewer, muſt compoſe a third Part; and another third muſt be fat Land, taken either from a Marſh or a Hemp-Cloſe.

When the proper Seaſon comes for lodging your young Stems in Boxes, theſe latter ſhould be always proportioned to the Heads of the Plants. The Stems, when they are even become vigorous, will accommodate themſelves to a Box of about fifteen Inches Diameter; but they muſt be placed more at large in others, when the Tree ceaſes to augment its Foliage, and informs you, by its languid Air, that its Soil and Suſtenance are inſufficient. At the Cloſe of ſeven or eight Years they may be tranſplanted, with all their Earth, into their laſt Boxes, whoſe Diameter may be about twenty-four Inches.

All theſe Boxes ought to be made of entire Heart of Oak. The ſmall ones may be compoſed of little Oaken

Planks, ſomething more than an Inch thick, and they can't be too ſolid in their Conjunction. Your Boxes will ſoon decay, if you neglect to caſe them over with a double Lay of green Paint liquified with Oil. Which laſt is likewiſe as neceſſary on the Inſide, to preſerve the Wood from being rotted by frequent Waterings, as it is on the Outſide, to ſecure it from the Rain and Sun.

Chevalier. I obſerve, on each Side of the large Boxes, a Door with double Hinges, and two Iron Bars. Will your Lordſhip be ſo good as to inform me of the Uſe to which thoſe Doors are appropriated?

Count. They are made to admit the proper Renovations of Soil, and to enable the Gardener to clear the Box of the liquid Sediment that is collected and thickened at the Bottom; and likewiſe to pare off the extreme Parts of the Mould, that it may afterwards be taken out with eaſe, when it becomes neceſſary to transfer it into a new Box.

In order to place ſome Shrubs, and more eſpecially Orange Trees, in Boxes, after a proper Manner, the firſt Proceeding is to cover the Bottom of the Boxes with large Pieces of Brick and Potſherds, which afford the Water an eaſy Flow through the Cavities that are opened at the Bottom. Were it not for this Precaution, the Humidity collected by the Sediment would rot the Box, and deſtroy the Tree by an immoderate Chillneſs. When this Proviſion has been made for the Security of the tender Plant, the Bottom and Sides of the Box muſt be lined with good Soil, prepared in the Manner I have already mentioned: In this Soil the Tree ſhould be inſerted in an upright Poſition, and the Ball of Earth at its Roots muſt be leſſened, not with any Intention to ſtrengthen the Tree, but rather to prevent its requiring a large Quantity of Earth, and to confine it by a moderate Vigour, to a juſt Proportion with the Box. A new Maſs of Earth muſt then be heap'd up on every Side, and preſſed in a due Compactneſs, in order to ſecure the Stem from violent Winds, and cauſe the Earth to ſettle round the Roots with as much Exactneſs as poſſible.

When the Tree is to be placed in the Box, Care ſhould be taken to raiſe the upper part of the Clod of Earth at its Roots higher than the Rim of the Box, becauſe the Weight of the Tree and the Action of the Roots will afterward lower the Clod by degrees to a Level with the Edge of the Box. If this Precaution be neglected, the Tree in proceſs of Time will ſink too low.

Chevalier. Will not the upper part of the Clod be expoſed to the Air, in the Poſition your Lordſhip recommends?

Count. It ought to be covered over with Earth, and the whole ſhould be ſuſtain'd by ſmooth Staves diſpoſed round the Edge of the Box.

The Form of an Orange-Tree.

The Head of an Orange-Tree is ſometimes ſhaped like a fine Buſhy-Dwarf, without any Vacancy within. Some Perſons chuſe to diſpoſe it into a perfect Globe; others teach it to aſſume the Form of an Hemiſphere, by rounding the Top and Sides, and pruning the lower part horizontally.

Chevalier. This Hemiſphere, with its Stem, reſembles the Figure of a Muſhroom.

Count. The principal Beauty of an Orange-Tree conſiſts in the Regularity of its Head; and as this Beauty is more durable than the Flowers, the Pruning-Knife is chiefly employed to procure it, unleſs the Flowers are intended to be multiplied.

Chevalier. Are theſe Plants pruned in a different Manner from other Fruit Trees?

Count. Yes, Sir, in ſeveral Particulars.

The Manner of pruning an Orange-Tree.

When Fruit-Trees are pruned, Care is taken to preſerve the ſmall Branches in a thriving State, in order to promote their Fertility; but they are retrenched in an Orange-Tree, that a Vacancy may be open'd within. The ſame Method is taken with the Branches that ſhoot downward in a perpendicular Direction; and likewiſe with thoſe that are diveſted of their Leaves, which only happens when the Tree is weak or diſtemper'd: But we carefully preſerve all the vigorous

Branches, whoſe advantageous Situation contributes to the Regularity of the Head. Great Favour is likewiſe ſhewn to a Branch of falſe Wood, as well as to one that has been generated contrary to the common Order, when any Advantage is to be expected either from its Vigour or Situation.

If the Tree ſhould happen to be disfigured by Showers of Hail, boiſterous Winds, an impairing Diſtemper, or any other Accident, it is cuſtomary to examine what Parts of it are moſt entire toward the lower part of the Head, and the Branches are pruned off to that Place; or, in other Words, they are ſhorten'd to the very Part that exhibits the Preparation for a new Foliage, equal almoſt to the former in every Particular, and whoſe agreeable Form, by advancing to its full Perfection, will afford its Owner a Reſtitution for the Loſs he ſuſtained.

This amiable Tree is obnoxious to the Malignity of Diſtempers, the Ravages of Vermin, and the injurious Severity of Cold. If it aſſumes a yellow Complexion, it ought to be removed into the Shade, and ſhould only be expoſed to the Sun for two or three Hours, for fear of exhauſting its nutrimental Juices: Or perhaps it will be proper to ſtrike directly at the Origin of the Evil, which may probably proceed from the Roots; and then it will be neceſſary to ſupply them with new Earth, and even to cut off all thoſe that ſeem uſeleſs and decayed.

Chevalier. Can one have a Sight of the Creature that is ſo injurious to this Tree?

Count. They are ſeen but too eaſily, and you may obſerve ſeveral on this Leaf.

Chevalier. I don't diſcover any Animal there, and can only ſee a Cluſter of blackiſh Spots, ſome larger than others.

The Vermin that injure the Orange-Trees.

Count. Thoſe Spots are the Vermin I mentioned. The Creature is at firſt a little imperceptible Inſect, that faſtens itſelf either to a Leaf, or the Stalk, and then ſucks out the Humidity that proves its Nouriſhment, without making any Puncture in the Leaf. The Black of this minute Inſect is converted into a Cruſt, a Cruſt, or immoveable Covering, which is gradually thicken'd and enlarged, and under which the Creature lives, and ſeems to be a Part of it. This Animal is viviparous, and becomes the Parent of a young Progeny like itſelf. Each Inſect is thought to be Male and Female, ſince they all ſeem to have young ones

Prior. Under the Spot or Shell of one of theſe Creatures, that was not the Twelfth Part of an Inch in Length and Breadth, I obſerved, a few Days ago, by the Aid of a Microſcope, a prodigious Number of little Animals, that ſeparated from each other at the Opening into their Habitation, and then diſperſed themſelves like Sheep in a verdant Meadow. I likewiſe took Notice of a ſable Speck under the Covering which encloſed them, together with the Remains of ſeveral ſcaly Shivers, which inclined me to believe they were Part of the Carcaſe of the Dam, who had exhauſted her own Subſtance in the Generation and Nouriſhment of her Off-ſpring.

Count. In order to guard againſt the Damage an Orange-Tree may ſuſtain from the multiplied Race of theſe Inſects, by their draining it of its Juices, and preventing a due Perſpiration through its Leaves; it will be proper to rub the invaded Branches, and their Foliage, with a Bruſh ſteeped in Vinegar, or a Piece of Linen dipped in Salt-Water. This Method will ſometimes exterminate the whole Breed; but we have frequently the Mortification to find it ineffectual.

The third and greateſt Hazard to which theſe Trees are expoſed is the Severity of the Cold, againſt which the Green-houſe is the beſt Preſervative: It is therefore cuſtomary to lodge all the Boxes in it, from the Middle of *October* till the Return of a more favourable Seaſon. Thoſe who have an Inclination to gather Flowers, in the Winter Months, ſhould not forget to pinch off the Extremities of ſome of the ſmall Branches in *September.* This Method will prevent them from unfolding their other Buds till the Seaſons be more advanced, as has been already obſerved, when Roſe Trees were the Subject of our Converſation.

Chevalier. Is the Culture of the Fig-Tree attended with any Difficulty? I muſt confeſs, it is the Plant I ſhould be moſt deſirous of rearing, becauſe its Fruit is perfectly agreeable to my Taſte.

The Plantation of FIG-TREES.

The Merit of a Fig-Tree.

Prior. The Fig-Tree is eaſily cultivated; it advances with a ſpeedy Growth; its Fruits may be ranked among the moſt perfect Kinds, and it produces them twice in each Year. Theſe four Advantages are not comprehended in any other Plant.

It muſt be granted, that all ſorts of Figs are not ſucceſsful in our Climate; but the White Figs, as well the round as the long, and which are the only Species that are now cultivated at *Paris*, are ſo extremely delicate, and advance to ſuch Perfection, that neither *Languedoc* nor *Provence* can boaſt of any that exceed them; and this has been frequently acknowledged to me by ſeveral curious Perſons of thoſe Provinces who delight in Gardening, and are not prepoſſeſſed with any Partiality to their own Country. They likewiſe have aſſured me, that ſome of their Countrymen were ſo ſtruck with Admiration to find the round Fig ſo ripe in Autumn at *Verſailles*, and ſo delicious in each of its Seaſons, that they diſtinguiſhed it in *Provence* and *Languedoc* by the Name of the *Verſailles Fig*, and thought it preferable to all others.

Count. I have heard ſome Travellers, who even idolize the Productions of *Italy*, acknowledge, that they never taſted any Fruit that was enriched with a more exquiſite Juice than our Figs of the ſecond Seaſon.

Chevalier. I am determined then to have a Plantation of theſe Trees.

Count. Nothing can be more practicable; for the *Genoeſe* Merchants will ſoon furniſh you, upon very reaſonable Terms, wirh all the Materials neceſſary to form a fine Growth of Fig Trees. But you may raiſe your Plantation at a leſs Expence, from the rooted Fibres, Suckers, Slips, or Layers of the moſt approved Trees, and which will ſeldom fail of being ſucceſsful and fertil in a ſhort Time.

The fine Slips are taken from the Southern Side of a Tree well rooted in the Earth; and they may be replanted in the Spring or Autumn.

Layers are Branches bent into the Earth without being ſevered from the Tree, and they take Root in that Part of the Ground into which they are ſunk. They are afterwards disjoined from the Tree, by cutting them from the Stem, in the ſame Manner as is practiſed on the Vine.

There is another Method of diſpoſing Layers, which is eaſily performed. You cauſe the Branch of a Plant to paſs through a Tin-Funnel, or a Wicker-Baſket, filled with Earth, into which the Branch will ſoon ſhoot ſeveral Fibres. It muſt then be cut aſunder below the Baſket, which ſhould then be placed in the Earth. This Expedient ſecures the Roots from all injurious Treatment, and never retards the Plant, which will not need any Graft, ſince it is already a Species that produces the beſt Kind of Fruit.

Should you be deſirous of raiſing Fig Trees that will bear Fruit the enſuing Year, lay the fineſt Branches of an old Tree in the Earth; and, I can aſſure you, there is no great Myſtery in the Operation. You cauſe a Branch, of a moderate Size, to paſs through a Box, after you have peeled off a Round of Bark about a Finger's Breadth, and between two Knots. The Part ſo ſtrip'd muſt be diſpoſed the Breadth of four or five Fingers above the Bottom of the Box into which it is inſerted; and when this Branch has been covered over with Earth, it will ſhoot out ſeveral Roots from the wounded Part; and it ſhould afterwards be ſevered from its Stem, by cutting it off below the Box.

When your young Fig-Trees, that have been propagated from Slips and Layers, begin to unfold a fine Growth of Leaves, they ſhould be removed from the Pot, or Baſket, into Boxes; and the Ball of Earth that adheres to their Roots ought to be raiſed a little higher than the Edge of the Box. When your Fig-Trees no longer produce any large Wood, you muſt either ſurround them with a new Supply of Earth, or place them in larger Boxes; and if, at the End of twenty Years, they ſhould be too much confined in the larger Boxes, they will ſtill continue proſperous, if you tranſplant them into the Earth.

Prior. Fig-Trees are ſometimes trained up to the Eſpalier; but they will then have too much Liberty, and ſhoot out more Wood than is conſiſtent with their proper Regulation. They may indeed be eaſily ſupported by Poles, about the Diſtance of a Foot from the Wall; but this little Foreſt of Plants, raiſed before a Wall that remains uncovered below, is far from being ornamental to a Garden; and the Winter will frequently be very injurious to the Trees, whatever Precautions may be taken to the contrary.

Count. We generally content ourſelves with Fig Trees in Boxes, and likewiſe with thoſe that are formed into Buſhy-Dwarfs. The Tree that grows in the natural Earth is ſecured from the Rigours of Winter by a Covering of Straw: Thoſe in Boxes are preſerved in the Green Houſe; and they are, at preſent, in the greateſt Eſteem, becauſe they are capable of being cultivated with more Certainty and Eaſe than any other Claſs; and the Fruit, beſide the Merit of a full Growth, has alſo the Advantage of compleating its Maturity the ſooneſt of any.

Chevalier. 'Tis Pity this Plant is not ſo beautiful to the Eye as the Orange-Tree.

Count. Its Shape reſults from a Set of particular Principles, which may be all comprehended in a few Words. In the firſt Place, it is impoſſible to form the Head of this Tree into an exact Regularity.

Prior. The Damage is not very great; for an Air of Eaſe and Unconſtraint has always an agreeable Appearance, even in thoſe Objects that are capable of a curious Adjuſtment.

Count. A Fig-Tree in particular ſhould have a Mien of Freedom. Its Leaves are too large and uncompliant to form an exact Round; it will be ſufficient, therefore, if it has ſome Similitude to that Figure; and we are ſatisfied, if it does not ſhoot into a ridiculous Expanſion on one Side, while its Growth is entirely contracted on the other.

The Eyes, in the Branches of ſmall Wood, are flat, or but little ſwelled, and are very remote from each other. The good Branches have large Eyes, whoſe mutual Diſtance is very inconſiderable; and theſe ſhould be always preſerved. Hitherto the Proceſs is much the ſame as in other Fruit Trees; but as Figs grow upon the ſtrongeſt Branches, and never upon thoſe that are ſmall, the weak Branches muſt be cut off, and the ſtrong ones preſerved, contrary to the Methods practiſed on other Trees. The Figs ſhoot immediately from the large Branches, without being preceded by any Flowers; becauſe the Fruit itſelf encloſes its Chives, together with its Powder and Seeds, under one common Folage.

Prior. Every Circumſtance in this Tree is very ſingnlar, and varied from the general Order obſervable in other Plants. That Being, who has ſubjected them to one uniform Law, can diſpenſe with its Operations whenever he pleaſes, and his Power is equally productive when he even recedes from the Laws of Fertility. The Stems of thoſe Leaves that ſhoot forth, after *Midſummer*, will produce Fig-Buds, or the firſt Figs of the enſuing Year; and the Stalk of each Leaf, that unfolds itſelf in the Spring, will bear a Fig that will ripen in Autumn, if the Weather be hot, and the Expoſition favourable; otherwiſe it will wither away, and not attain to any Maturity, even in the following Year; though it may poſſibly preſerve ſome Appearance of Vigour in the Winter-Seaſon.

Count. Can you judge, in the manner by which the Fig-Trees grow, how the Tree ought to be pruned?

Chevalier. I ſhould think it proper to let the large Branches be very long, in order to acquire a greater Quantity of Fruit.

Count. That, indeed, would be the Effect; but it will be much better to invigorate the Tree, nouriſh the Wood, and raiſe a Growth of Figs that will be more valuable for their Beauty than their Number; for which Reaſon, the Fig-Tree is kept ſomething low, eſpecially thoſe in Boxes, which cannot derive ſo much Aliment from the Earth, as thoſe that expand their Roots in full Liberty.

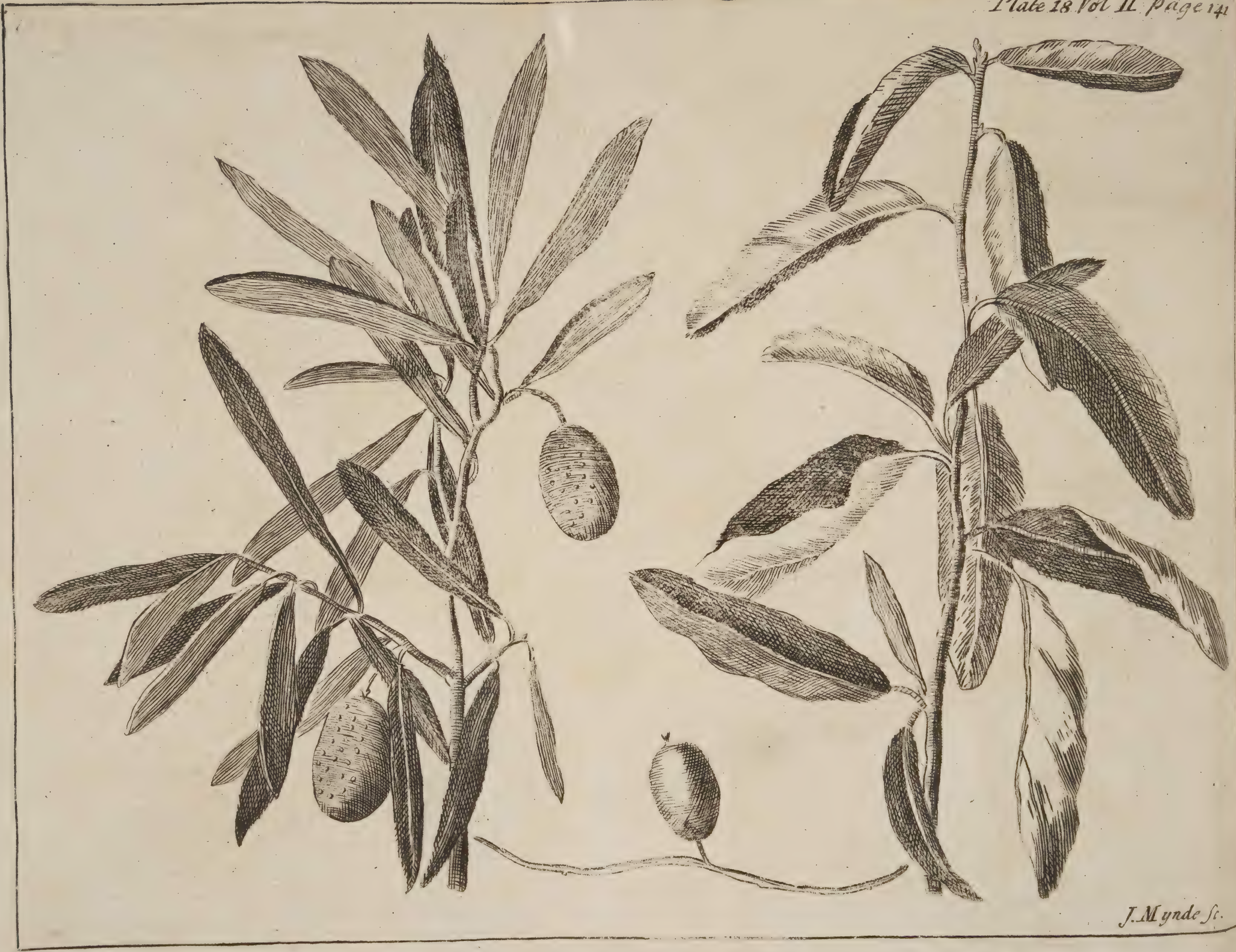
At the Return of Spring it will be proper to cut off all the Shoots that riſe from the Stem, and they may be employed as Slips. All the dead Wood muſt likewiſe be lopped off, and the large Branches that are newly ſhot forth ſhould be ſhorten'd, and not permitted to exceed two Feet in Length. In the Month of *April* the Ends of all the old and new Branches ought to be broken off, that theſe may produce lateral Shoots which will ſupply the Fruit below with more Sap; and at the ſame Time a richer Growth is ſecured for the ſucceeding Year, when all the new Shoots that have yielded Leaves, will likewiſe be productive of Fruit.

The Fig Tree is a Plant that requires large Refreſhments of Water; and it is dangerous to confide this Part of its Culture to an indolent Gardener, who will think himſelf diſcharged from that Care by the leaſt Sprinkle of Rain; though it is certain, that a very copious Shower only moiſtens this Plant to a very moderate Degree; becauſe the large Expanſe of its Leaves prevents the Humidity from arriving at its Stem. It ought therefore to be plentifully watered once a Week, at leaſt, during the Spring; and this Operation may be facilitated by Means of a Pump, that raiſes Water to the Top of a Building, that there may be a ſufficient Quantity of it ready for the Extinction of Fire. Or a leathern Pipe may be fixed to the Cock of a Fountain, or the Ajutage of a *Jet d'Eau*; and the Water, being impelled forward by the Current behind it, will aſcend without any Obſtruction. By which Means, a ſingle Servant may ſoon diſtribute a ſufficient Quantity of this Fluid to a long Row of Boxes, and even to all the Beds of Herbage in a large Compartment.

Chevalier. Your Lordſhip has undoubtedly cauſed your Fig-Trees to be diſpoſed around that Baſon, that they may be watered with as little Difficulty as poſſible; but I ſhould be glad to know why they are faſten'd to the Foot of the *Jet d'Eau* with long Bands of Woollen Liſt.

Count. The Affair is very different from what you imagine. In the Middle of that *Hexagon* Baſon which is even

Plate 18 Vol II page 141



The Grafted Olive.

The wild Olive & it's Fruit.

even with the Surface of the Earth, you ſee a Pedeſtal four Feet high, ſupporting a round Baſon, that diſcharges a Sheet of Water over its Rim In that upper Baſon I cauſe as many long Pieces of Liſt to be ſteeped, as there are Boxes of Fig-Trees round the grand Baſon. The hither End of the Cloth being lower than that which is immerſed in the Water, the Liſt is eaſily filled by the Aid of the Air, which gravitates on the Surface of the Water, and cauſes it to glide along the Fibres of the Wool. It then diſtills in Drops on the Earth, and diffuſes a ſufficient Freſhneſs thro' the whole Box, and which may be redoubled upon every proper Occaſion.

Chevalier. This is ſaving abundance of Labour, at a ſmall Expence: But are there no other Fruits that your Lordſhip would recommend to my Care?

The Plantation of OLIVE-TREES.

Prior. The Olive Tree would deſerve our Attention as much as all the other Plants we have mention'd, and perhaps more, could its Fruit be brought to a due Maturity in our Provinces.

Chevalier. In what Countries, Sir, is it moſt ſucceſsful?

Prior. It thrives to perfection in the *Southern* Parts of *France*; but it enriches in a peculiar Manner the Cantons of *Oneille*, and *Graſſe*, in *Provence*, with an Oil whoſe Sweetneſs excels the moſt perfect Growths of *Italy* and *Portugal*. Next to this, the Oils of *Arramont*, *Aix*, and *Nice*, are in the greateſt Eſtimation. Thoſe that are brought from *Naples*, the *Morea*, *Candy*, and the Iſles of the *Archipelago*, are ranked in the third Claſs. The Olives likewiſe differ as much as the Oils: Thoſe of *Provence*, which are eaſily diſtinguiſhed by their Smallneſs and unequal-pointed Figure, have a delicacy of Flavour, which makes them univerſally preferred to all others.

The Leaves of the Olive-Tree have a near reſemblance to thoſe of the Willow, and it is a Plant that may be eaſily cultivated by thoſe who have any Curioſity to raiſe it; ſince it demands very little Labour or Attention *. It is cuſtomary to plant it in a Box of light Earth. It requires plenty of Water in the Summer Seaſons. and ſhould have a commodious Shelter from the Winter's Cold.

Chevalier. In what manner, Sir, is the Oil made?

Prior. Olives are uſeful in a double Function. When the Extraction of their Oil is intended, they are bruiſed under a Mill-Stone, and reduced to a Paſte: This muſt be work'd up with an Intermixture of warm Water, which diſengages the Oil, and by cauſing it to ſwim uppermoſt, facilitates the manner of acquiring it. It may be kept for about a Year, after which it degenerates and grows uſeleſs. Nature, by advancing Wine to Perfection in proportion to the Increaſe of its Age, ſeems to invite us to act with Œconomy in its Conſumption, leſt it ſhould happen to be abuſed; but in limiting the Goodneſs of Oil to the Duration of a Year, ſhe compels the Rich to impart it to their Inferiors, who will always uſe it with Moderation.

When Olives are reſerved for eating, it will be neceſſary to correct their bitter Flavour: In order to which, they are firſt paſs'd through a † Lixivium of Aſhes and Lime, and then depoſited in Veſſels of Stone or Wood, with a ſmall quantity of Water, Salt, Coriander, and Fennel, or ſome other *Aromatic* Plant.

This Fruit, whoſe Juice is tranſported in ſuch a beneficial manner to all Parts, compenſates the Provinces where it grows for their want of Butter, and other Accommodations afforded by Paſture-Lands, which are ſeldom ſeen in thoſe Countries, becauſe the Graſs is withered by the ſudden Evaporation of the light Soil, which lies too much expoſed to a ſcorching Sun.

Chevalier. We have Tracts of Land, in ſeveral Parts of the Kingdom beſides *Provence*, that are parched and render'd uſeleſs by the immoderate Heat that exhauſts them: Is it impoſſible to cultivate Olives in ſuch Soils as theſe?

Prior. It may perhaps be ſaid that they will not ſucceed

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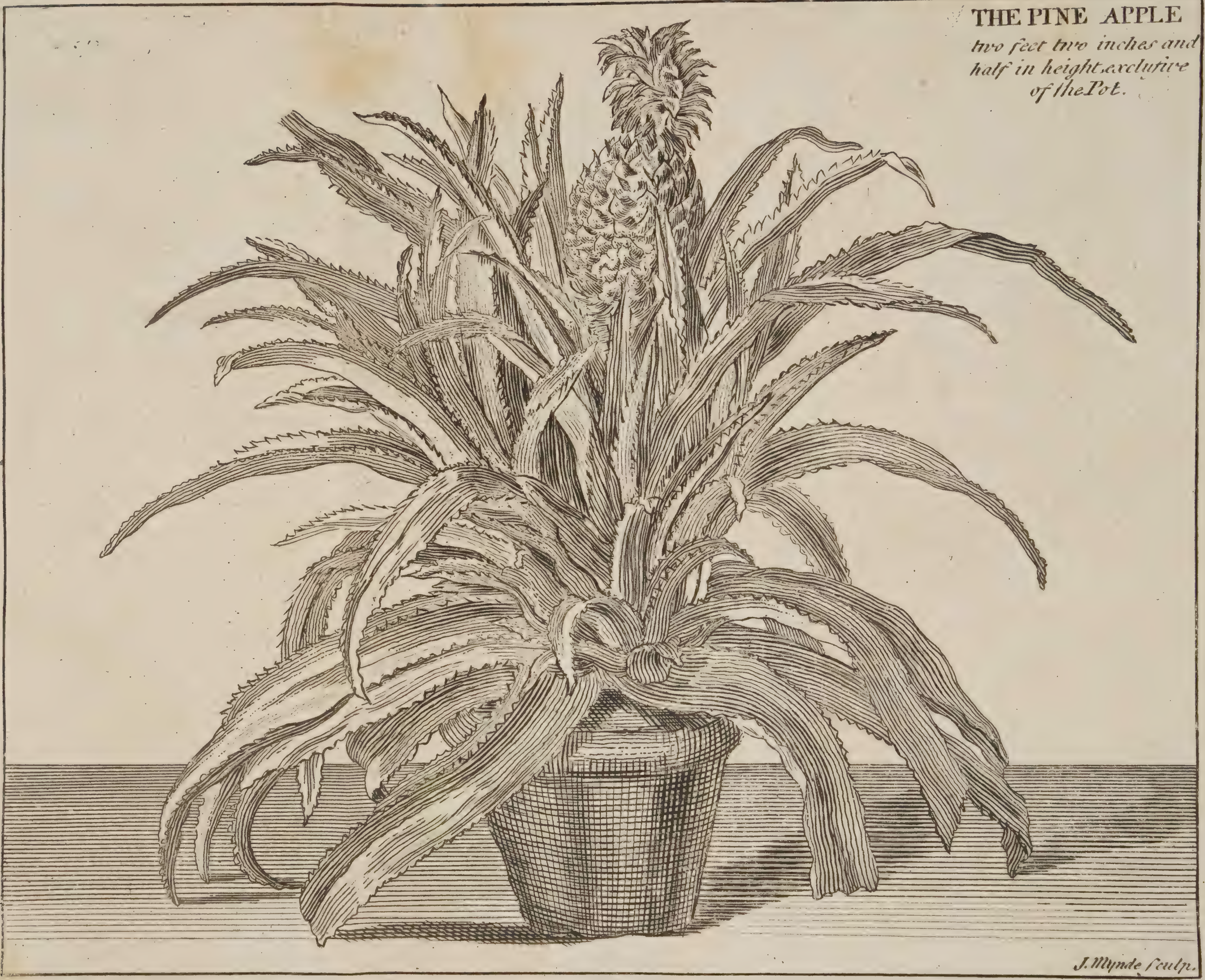
* Non ulla eſt oleis cultura, *Georg.* 2.

† Lye.

Plate 19 Vol II page 143



THE PINE APPLE

two feet two inches and half in height excluſive of the Pot.

J. Mynde ſculp.

ceed there, becauſe they have never been ſeen in thoſe Parts. When our Anceſtors, the *Gauls*, paſs'd the *Alps* to enjoy the delicious Gifts of the Vine, and the Olive-Tree, in their *Italian* Settlements, they had no Conception that theſe Plants could ever proſper in *Gallic* Climes; and yet they have ſince been tranſplanted thither, with more Succeſs than even attends them in *Italy* itſelf. It was likewiſe a prevailing Opinion, that the *Muſcadine* Grape, the Orange, and the Fig, could never accompliſh their Maturity among us. It is not very long ſince this Error has been diſſipated; and we were then convinced that the *China* Orange, the *Muſcadine* Grape, and the Fig, were capable of acquiring as exquiſite a Flavour, and as perfect a Ripeneſs, even in the *Northern* Part of *France*, as they ever aſſumed in *Champaign*. You may likewiſe judge, by another Inſtance, what Expectations we may entertain from our Experiments, and the Fertility of our Soil. Some Years ago, the King gave Monſieur *le Normand* two Suckers of a Pine-Apple, and recommended their Cultivation to his Care, though they were almoſt withered at that time, and had not any Roots: The Heart, however, was good, and they happened to take. But though the Fruit they produced could not be advanced to its proper Maturity, yet two Suckers, that were preſerved from the Putrefaction and Danger of the others, produced, in the Year 1733, two Pine-Apples, whoſe Beauty attracted the Attention of the Curious. The Aſſiduity uſed in their Culture, in Conjunction with a favourable Autumn, raiſed them to a perfect Maturity. The King himſelf taſted one of them the 28th of *December*, and found it excellent; and all thoſe Perſons, to whom his Majeſty thought fit to ſend part of theſe Fruits, in order to conſult different Palates, unanimouſly agreed that the Pine-Apples were completely ripe, and had a delicate melting Pulp, agreeably quicken'd by a fine Acid, and were as richly perfum'd as a Strawberry.

My Inference from this Fact is, that if the Pine-Apple, which ſeem'd to be limited to the *Torrid* Zone, can be brought to Maturity in the *Northern* Part of *France*; the Olive-Tree, which proſpers in the Provinces beyond the *Loire*, may certainly ſucceed on this ſide of that River. Our Climate is favourable to moſt Productions, and we need only make proper Trials of its Efficacy, and aid it in its Operations.

Count. I really believe the Olive-Tree would thrive in our Gardens, as well as the White Mulberry-Tree, which now performs Wonders in ſeveral Places that were formerly thought too cold for this Plant, as well as for the Silk-Worm.

Prior. We daily pay leſs Regard to a Maxim that has been extended too far, and which aſſerts that Fruits are ſo peculiarly adapted to certain Countries, that they can never ſucceed in any other Regions: And ſince we have, at laſt, diveſted ourſelves of this unreaſonable Prejudice, by which we had long been impoveriſhed; we rear thoſe Fruits, with whoſe Names we were almoſt unacquainted ſome Years ago. The Obſervations that have been made on the valuable Productions of different Provinces, and on ſuch as each Soil either furniſhes of itſelf, or may be rendered capable of producing, by its Intermixture with other Earths; a due Examination of what Fruits particular Trees afford without pruning; and what kinds other Trees may be taught to bear, by this Operation; a ſtrict Attention to the natural Produce of each Seaſon, and to thoſe Additions that may be made, by the Aſſiſtance of Saſhes, Mats, Conſervatories and hot Beds: In fine, an exact Conformity to the whole Proceſs of Nature, aided by all ſorts of Experiments and induſtrious Applications, has enabled us, within the Compaſs of a few Years, to collect into one Country, all the Advantages which, till then, were diffuſed through ſeveral Regions; we can now communicate to various Seaſons thoſe Productions that were formerly appropriated to one; and are capable of deriving Profit from a Soil that once ſeemed to be the Seat of Sterility; in a word, we have it in our Power to accommodate Society with a Circulation of Fruits and Herbs that are as durable as the Year itſelf.

Count. This Circulation is the principal Object of Gardening; but then we are not to fill our Ground with every particular Species, as is practiſed by ſome Perſons.

What Advantages can redound from a laborious Culture of ſuch Trees as produce but indifferent Fruits? Let us rather devote our Time and Soil, to thoſe Productions that are moſt perfect. I intend, my dear *Chevalier*, to inform you, in our next Walk, how a Garden may be employed in the moſt beneficial Manner; by preſenting you with a Catalogue of thoſe Species which ought to be admitted, in excluſion to all others; and I ſhall then acquaint you with their proper Management, through the whole Courſe of the Year.

Chevalier. If your Lordſhip is reſolved to confine me to ſuch a ſtrict Oeconomy; I doubt I muſt bid adieu to Philoſophy.

Prior. Not at all, Sir, I aſſure you. True Philoſophy always begins with a reaſonable Oeconomy; and it is this alone which enables us to paſs our Days in tranquillity, as well as to render good Offices to others, and to conduct all our Undertaking, with Decency. What Prerogative has any Perſon to philoſophize on what paſſes in the Heavens, and to range the whole Syſtem of the World, if he is unable to regulate his own Habitation?

FRUITS.

DIALOGUE IX.

The COUNT. *The* COUNTESS. *The* CHEVALIER.

Chevalier. NEW Figs in the Month of *May*, with Grapes of the laſt Year's Growth! Surely this is a very uncommon Deſert.

Counteſs. You ſee, Sir, we can unite the old Fruits with the new.

Chevalier. I ſuppoſe the Figs may be owing to the Heat of the Stove and the Dexterity of the Gardener; but is the Preſervation of the autumnal Fruits likewiſe the Effect of his Care? I am apt to think they have been managed by ſome other Hand.

Counteſs. This is a Province I have reſerved to myſelf; and have ſometimes been ſo ſucceſsful, as to preſerve the *St. Germain* Pear to the Month of *February*; and the *Virgoleuſe* even to *April*.

Count. New Expedients are daily invented for cauſing agreeable Surpriſes, by preſenting us with ſuch Fruits as are not to be expected, according to the Courſe of the Seaſon; and the Imagination can never be too fertil in furniſhing ſuch Expedients as theſe: But the Point from whence we ought to ſet out, in order to ſecure a Supply of fine Fruit through the whole Courſe of the Year, is a right Knowledge of the Seaſon in which each particular Fruit attains its Maturity, either on the Tree or in the Conſervatory; and a regular Choice of thoſe Species that are proper to be planted in the Kitchen-Garden.

Counteſs. Thoſe that are moſt excellent ought to be procured for all Seaſons, and one ſhould never take up with ſuch as are indifferent, except when the others are not to be acquired.

Chevalier. The Number of excellent Fruits is not extremely great; and I can eaſily ſet down their Names and Succeſſions in my Book of Memorandums.

Count. I promiſed to furniſh you with the Particulars.

Counteſs. Let us begin with the Fruits of the preſent Month.

Chevalier. I always thought that Flowers were the only Productions of *May*.

Counteſs. We intend to entertain you with a Collation of Strawberries To-morrow.

Early *May* Fruits.

Chevalier. Does your Ladyſhip mean ſuch as will be red and tender.

Counteſs. I do, Sir: And if you are diſpoſed to be incredulous, I can even cauſe them to ripen in the Month of *April*. I aſſure you, we had ſome brought to Table two Days before we were favoured with your Company.

Chevalier. I ſuppoſe the Stove is inſtrumental in furniſhing theſe Novelties.

Count. Not at all; the young Plants were brought from the Woods in Autumn, and were then tranſplanted into a Bed. Care was taken to give them a new Supply of Heat in *February*, diſpoſing a Lay of freſh Horſe-Dung round the Bed; and the reſt has been compleated by the Sun-Beams and Glaſs-Bells properly managed

Counteſs. I propoſe, within fifteen Days at moſt, to preſent you with a Deſert of early *May* Cherries, attended by Strawberries in their full Perfection, and produced by the natural Soil. Theſe are Part of my Revenues, and I yearly receive them myſelf. As to the Manner of their Production, the Count will acquaint you with the Particulars.

Count. In order to raiſe a Growth of Early Cherries, it will only be neceſſary to train your Trees to the Eſpalier in the beſt Expoſure; and if you are deſirous of forward Strawberries in an open Soil, all the Precaution you need obſerve is, to take the Plants out of their native Earth, and place them at the Foot of a Wall ſufficiently expoſed to the Sun. The Flowers that bloom laſt in Spring are to be retrenched; but thoſe which make the firſt Appearance ſhould be ſtrengthen'd and aided as much as poſſible. Theſe are ſoon enlarged, and the Fruits they produce are rendered much finer by this Management.

When the Fruit-Seaſon of theſePlants is over, they ſhould be cut even with the Surface of the Earth, which will give an additional Vigour to the Roots; whereas, if the Stems are permitted to continue in their full Growth, the Roots will be exhauſted in nouriſhing a Profuſion of Shoots, which will bend ſpontaneouſly into the Earth, and weaken each other by their immoderate Number.

A Bed of Strawberry-Plants will continue fertil for three Years; but a third Part of them ſhould be annually deſtroyed, in order to repleniſh that Part of the Plot with young Plants from the Woods; and there will always be a ſufficient Supply of good Fruit, when this Method is purſued.

Raſberries.
Gooſeberries.

Counteſs. Strawberries and early Cherries will be accompanied by Raſberries and Gooſeberries in *June*; and common Cherries will be gathered about the Middle of that Month. Theſe will ſoon be ſucceeded by the *Montmorenci* Cherry, and the White and Black-Hearts, which are in the greateſt Eſteem.

Cherries, *&c.*

July is the Month for Red Fruits, and our Deſerts will then be graced with all the Kinds I have already mentioned; together with the *Engliſh* Cherry, which is ſo generally valued for its Largeneſs and ſweet Flavour: The Black Cherry will likewiſe make its Appearance at the ſame Time; and the Fig-Tree will then afford us ſome Productions to grace the firſt Courſes at our Entertainments. Toward the Middle of the ſame Month we ſhall gather early Peaches; the little Peach of *Troyes*; *Catalonian* and *Perdrigon* Plums; the earlieſt Apricots, and ſeveral excellent Pears, ſuch as the little Muſk, the *Magdalen* and the early *Rouſſelet*.

Count. The excellent Flavour of the Muſk Pear is a Compenſation for its extreme Smallneſs.

Summer Pears.

This Fruit ſucceeds beſt on an old Tree, in the open Air, and in a dry Soil. The *Rouſſelet* is not very common as yet, but deſerves to be rendered ſo, becauſe it is as forward as the Muſk Pear, and not only exceeds it in the Delicacy of its Juice, but is likewiſe ſeven or eight Times as large.

Counteſs. The latter End of *July* furniſhes me, if I am not miſtaken, with the pearly *Mirabelle*; which is a large Plum, whoſe Juice is exceeding ſweet. When all theſe Fruits are properly intermixed, they may be formed into Pyramids, and other Imitations of Architecture: The Stories and Projections of which may be ornamented with ſhining Colours; and they are likewiſe capable of being clouded in a very agreeable Manner.

The Month of *Auguſt*, inſtead of beſtowing its Fruits, ſeems to laviſh them with the utmoſt Prodigality. We are then regaled with large Figs, Cherries of the laſt Growth, Apricots, and a vaſt Variety of excellent Pears.

Count. The firſt of theſe are the *Muſk Robin*, which is a Pear of a breaking Pulp, and a rich muſky Flavour; the *Cuiſſe-Madame*, whoſe admirable Juice renders it worthy to be ſkreened from the Winds, ſince the leaſt Blaſt ſhakes it from the Tree; the long-ſtalk'd *Blanquette*, much eſtemed for its vinous Reliſh and its tender Fleſh; the *Skinleſs Pear*, which is always too tranſient; it is likewiſe very melting, and full of a perfumed Juice.

Counteſs. I am very fond of the *Caſſolette* and the *Salviati*, which are produced at the ſame Time: Theſe Pears are very fit to be preſerved with Sugar, becauſe they have a rich muſky Flavour, and are not intermixed with any groſs Subſtance.

Count. The laſt Pears of this Month are the Summer-*Bon-Chrétien*, and the Royal Muſk-Pear; they have a breaking Pulp, but are full of a perfumed Juice.

Counteſs. This is likewiſe the Month of fine Plums; but I ſhould ſoon bewilder myſelf, ſhould I attempt to reckon up the ſeveral Kinds.

Count. The firſt is the *Monſieur*-Plum, which is the ſame as the Damaſk-Violet of *Tours.* The next are the Damaſk-Violet and the Damaſk-Red. The three beſt Damaſk are the White, the Green, and the Black, which eaſily diſcharge the Stones like thoſe already mentioned, and exceed them in Flavour.

The little white and red *Mirabelle*, the Apricot Plum, the *Italian*, the violet and white *Perdrigons*, together with the Diaper-Plum, are in great Eſtimation for their excellent Pulp. The *Saint Catherine* is no way inferior to any of the preceding Plums, eſpecially when it has been ſuffered to acquire the Wrinkles and Maturity of a proper Age on the Eſpalier; and to which it can never attain in the open Air, where it is too much expoſed to injurious Shocks from the Wind.

Counteſs. The Queen *Claudia* is, in my Opinion the fineſt of any that has been yet mentioned; and it would be a Plum of the utmoſt Perfection, were its Colour as beautiful as its Juice is rich.

Count. Its ever green Skin is ſometimes tinged with a Bloom of Red; and this Operation is performed by clearing away the Leaves which ſhroud it from the Beams of the Sun: But this Method, which ſucceeds very well with Peaches, Apricots, and Pears, ſhould be practiſed with Caution; and, I ſuppoſe, the Chevalier knows for what Reaſon.

Chevalier. 'Tis becauſe the Fruit would be injured, by being diveſted of a large Number of its Leaves, which may probably contribute to its Perfection, and they nouriſh it without doubt.

Count. It has been demonſtrated, by Experiments, that the Perfection of the Juices of Fruits depends on the Preſervation of their Leaves; ſince the Sap according to the Opinion which now prevails, never flows into the Fruit, till it has been circulated through the Foliage. It is certain, that when a Tree has been diveſted of its Leaves, the Fruit, inſtead of attaining its due Maturity, always degenerates and withers away.

The Month of *Auguſt* preſents us, at its firſt Entrance, with the *Magdalen*-Peach, one Species of which is called the white, and another the red, and they are both very excellent: They are eaſily diſtinguiſhed by their Leaves, which are more indented than thoſe of other Peach-Trees. We likewiſe gather at the End of this Month the *Mignonne*, which is of two Kinds, the ſmall and the large: The latter is the moſt amiable and perfect of all Peaches, and ought to be planted more than all the other Species.

The *Roſſane*, the Early-*Chevreuſe*, and the *Belle-Garde* preſent us with a deluſive Form, and want the Merit of the Violet-Peach, which is the moſt vinous Species, and appears about the Cloſe of *Auguſt* with the *Brugnon*, to which it has ſome Reſemblance.

Chevalier. What Difference is there between a Peach, a *Brugnon*, and a Pavy?

Count. The *Brugnon* has a ſtriped Skin: but the Peach and the Pavy have a Covering that imitates Velvet, or a fine Down: The Pavy and the *Brugnon* reſemble each other in their Inaptitude to quit the Stone, which the Peach always diſcharges and ripens to a great Perfection.

Counteſs. Let us now proceed to the Month of *September*; one of whoſe fineſt Preſents is the *Rouſſelet* Pear, as well the ſmall as the large one.

The Rouſſelet-Pear.

Count. I think I have obſerved that theſe two Species are in reality one and the ſame Fruit: They entirely correſpond in their Flavour and Fineneſs; and the Difference in their Sizes manifeſtly reſults from the Qualities of the Stock on which they are grafted, or from the Soil wherein they are reared. It is undoubtedly one of the moſt exquiſite Species of Pears. Nothing can equal the Softneſs of its melting Pulp, the Delicacy of its Juice, and the excellent Perfume of its Flavour. It ſucceeds in every Soil, and eſpecially in thoſe that are light. That which is cultivated at *Rheims* is the moſt perfect of any; and thoſe which are reared in Gardens, are much ſuperior to the *Rouſſelet*, which its propagated in the open Country.

Chevalier. A Tree, that extends its Roots under an immoveable Soil, can never enjoy the Benefits of Cultivation and Rain, like other Plants. From whence then does it derive its Juices? For my Part, I ſhould imagine it to be incapable of imbibing any.

Count. It undoubtedly extracts a conſtant Nutriment from the Earth, and eſpecially a Vapour impregnated with volatile Salts, from thoſe Parts of the Soil where the Cavities are deep and ſpacious. We may form a Judgment of this Fact from the Incruſtations of Salt-Peter, which adhere to the Spiracles of Caves, and to the Walls of ſubterranean Vaults. The ſmall Particles of Salt, which are ſo inſtrumental in exalting the Flavours of Fruits, are propelled by a Succeſſion of other Exhalations. They riſe and float in the Air, where the Tree expands a Profuſion of Leaves adapted to their Reception. Theſe Salts likewiſe ſettle on the Tops of Buildings, from whence they are ſwept by a Flow of Rain, and conducted to the Stems of Trees, where they ſink through the Cracks in the Ground, and a thouſand Canals which are opened by Worms for the Admiſſion of Air and Freſhneſs.

The *Rouſſelet* is either accompanied or ſoon ſucceeded by three Sorts of Peaches, that contend with each other for the Prize of Beauty and Perfection. The firſt is the Admirable; the ſecond the Royal Peach, diverſified from the other by a little Tumor, which lengthens it in the extreme Part; the third is the Purple or late *Chevreuſe*, which reſembles the early *Chevreuſe* in its Form, but has not ſuch a woolly Subſtance. Its Red is of a deeper Glow, and from thence it derives its Name of Purple.

Counteſs. The Tardineſs of its Appearance is not one of the leaſt of its Qualities. It almoſt ſhines alone at the Cloſe of *September*.

Count. If it has any Attendants, it derives conſiderable Advantages from its Compariſon with thoſe that ripen with leſs Facility. Such, for Inſtance, are the *Magdalen* Pavy *; the *Nivette*; the White *Andilli*; the Admirable Yellow; the Tardy Violet †, and the Pavy of *Pompone* ‡. The Month of *September* likewiſe brings ſeveral valuable Plums to Maturity, eſpecially the *September* Damaſk.

Counteſs. When there happens to be a great Scarcity of Peaches, their Place in the Deſert is ſometimes ſupplied by thoſe Apples that are called the Red and White *Calville*; the latter of which has the more exalted Flavour, and is capable of being preſerved till *Eaſter*.

The fine *September* Peaches diſcredit moſt of the Pears of that Seaſon; we muſt however except the Winter-Thorn-Pear and the *Rouſſelet*, which ſuſtains no Diſhonour by appearing at the Side of the Pavy-Royal, and the Admirable.

Count. The St. *Germain* Pear ‖ and the *Engliſh Beuré*, with an Intermixture of Grapes, are introduced to fill up, in ſome Meaſure, the Void between the Peach and the *Beuré*.

Winter Pears coloured by Art.

Counteſs. The *Chevalier* may add to the Obſervation he has already collected, that, during the firſt Days of *September*, it is uſual to colour Fruits by an Art that is eaſily practiſed. When we have an Inclination, for Inſtance, to heighten the faint Complexion of the St. *Germain* and the Royal Winter-Pears, and eſpecially a fine *Bon-Chrêtien*, the Leaves that intercept the Rays of the Sun are cleared away, and the Fruit muſt be moiſtened, by drawing ſeveral Lines over it, from End to End, with a Pencil dipped in freſh Water. The Sun afterwards refines this Water, I know not how, and changes it to a very bright and lively Vermilion.

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* So called, becauſe its Leaves are indented like thoſe of the *Magdalen* Peach.

† Or the Marble Peach.

‡ Or the monſtrous Pavy.

‖ It is alſo called *L' inconnue de Cheneau*, or *de la Fare*, *i. e.* the unknown of *La Fare*; it being firſt diſcovered on the Banks of a River called by that Name, in the Pariſh of St. *Germain*.

Count. When the Seaſon proves favourable, the Month of *October* compleats the Maturity of the ſecond Growth of Figs, which are ſmaller indeed, but much finer than the firſt; and theſe, perhaps, with Melons, are the moſt perfect Productions of the Year.

As to Pears, which this Month affords in great Plenty, I would limit their Culture to five or ſix Species, that are melting and delicate. The firſt is the *Beuré*, which is diſtinguiſhed, though perhaps improperly, into the Grey, the Red, the Green, and Golden Species. Theſe Diverſities evidently reſult either from the Qualities of the Stem, or the Temperament of the Soil. The other Sorts are, the Long-Green Pear *, the Long-Green *Swiſs* †, the Autumn and *Swiſs-Burgamots*, the Dean's, or St. *Michael's* Pear, and the *Beſidery*; which laſt never proſpers but in the open Air.

Counteſs. All theſe Fruits and eſpecially the Autumn-*Burgamot*, are very excellent; but they ſuſtain ſome Diſadvantage by ſucceeding the *Beuré*.

Grapes.

Count. At the End of *Auguſt* we gather ripe Grapes; ſuch as the Royal *Muſcadine*, whoſe Flavour is exquiſite; the *Auſtrian* Grape, which is equally delicate, and whoſe Leaves are diſtinguiſhable by their Reſemblance to thoſe of Parſley; the White and Violet Grapes of *Corinth*, the Berries of which Species are compact and ſmall, and have very little Stone. *September* likewiſe ſupplies us with the White, the Violet, and the Red *Frontiniacs*, which are excellent when they have advanced to a compleat Degree of Ripeneſs. But *October* is the Month in which theſe Grapes generally acquire their full Perfection, as well as the *Gennetin* and *Malmſey* Grape; together with the Long *Frontiniac*, which only ſucceeds in very hot Soils and favourable Years. In order to promote the Maturity of theſe Grapes, in thoſe Situations where they have not a ſufficient Warmth of

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* It is likewiſe called *Mouille d'Autonne*, the Autumn Mouth-Water Pear.

† This is alſo known by the Name of *Mouille Bouche Panche*, the ſtriped Mouth-Water.

Sun, the Berries, while they are as ſmall as Peaſe, ſhould be thinn'd with a Pair of Sciſſars, that thoſe which are ſuffered to remain may be more effectually nouriſhed. Thick Cluſters are the worſt, both for the Table and the Wine-Preſs.

Frontiniac and all white Grapes may be diveſted of ſome of their Leaves, and refreſhed with Water in a hot Sunſhine. This ſeaſonable Supply of Moiſture renders them ſoft, and tinges them with an amber Colour very pleaſing to the View.

Chevalier. There are ſome curious Perſons, who depoſite Grapes and other Fruits in the early Part of their Seaſon, and while they are yet tender, in Glaſs-Bottles, where they are properly matured by the Sun, and continue uninjured for a long time. But I am apt to think, Grapes may be preſerved by Methods ſtill more ſimple than this.

Counteſs. I am acquainted with two that are very ſucceſsful. The one conſiſts in cutting off long Branches that ſuſtain ſeveral Cluſters, and fixing them on Hoops, which ſhould be hung up in ſome Place where all outward Air is excluded. The ſureſt Expedient is to hang them in cloſe Boxes, or dry Caſks, that whenever we open one of theſe Stores to take out ſome of the Fruit, the reſt may receive no Prejudice.

The other Method, which is ſtill more certain, tho' indeed it creates more Trouble, is to leave the Grapes on the Eſpalier, and to keep them wrapt up in two little Bags, one of Paper, and the other of waxed Cloth, during the whole Winter-Seaſon. The Expence is inconſiderable, and need not be renewed for ſeveral Years. The Mouth of the waxed Bag muſt be drawn together ſomething ſtrait, that the Fruit may ſtill derive ſome Nouriſhment from its Stem, and not loſe much of its Juice by Evaporation. This Covering likewiſe ſecures it from the Ravages of Birds, and the injurious Effects of Rains and Hail, and common Froſts, but, if the Cold becomes violent, there ſhould be an additional Shelter of Straw; by which means we may be certain of enjoying *Frontiniac* and other Grapes till after *Eaſter*.

Count. All Stone-Fruits diſappear in the Month of *November*; but the Conſervatory, at that time, refunds its depoſited Fruits, which are gradually prepared to regale us at different Periods of Time.

Counteſs. They ſeem to maintain a kind of mutual Intelligence, and one would be apt to imagine they had entered into an Aſſociation, to render us their Services in their ſeveral Succeſſions.

Count. The *Monſieur John* is a Pear of an excellent Flavour, though it be ſomething ſtony. The Vine Pear has a melting Pulp, and affords an exalted Reliſh. The *Lanſac*, or *Dåuphin* Pear, the Green Sugar Pear, the Marquis's Pear, and the *Petit Oin*, or the Winter's Wonder, are all melting Pears, enriched with admirable Juices.

In *December.* Winter Pears. The St. *Germain* Pear, which, of all the melting Species, has alone the Privilege to be exempted from a flaccid Softneſs, ſeems ambitious to perform the Honours of the Table in the Month of *December*.

Counteſs. The *Virgoleuſe,* which unites an engaging Beauty with a perfect Flavour, is thought by ſome to have ſuperior Pretenſions for adorning the Deſert. The *Ambrette*, the Winter-Thorn, and the *Landry* Wilding, have alſo their Partiſans, and ſeldom make their Appearance with the others, without occaſioning ſome Conteſt for the Precedency; which the Company generally decide, by taſting them one after another, in order to render Juſtice to all the Competitors.

Count. The three laſt Species, together with the Good *Lewis*, are never perfectly ſucceſsful but in the open Air, on old Trees, and in dry Soils; and are intirely inſipid in a cold and humid Earth. The Dry *Martin* continues good for ſeveral Months, and is an excellent Baking Pear.

In *January.* The laſt Species of melting Pears, and which renders itſelf the Delight of *January* and *February*, is the *Colmar*.

Counteſs. The *Franc-real* *, the double Flower, the

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* It is alſo callad *Fin Or d'Hyver, i. e.* The Golden End of Winter.

Cadillac, and the Pound Pear, will grace the Deſert for a very conſiderable Time, and may afterward be baked.

Count. The Fire inſinuates its Particles into the Texture of Pears that are moſt ſtony, and impregnates them with extremely fine and palatable Salts, whoſe Efficacy is imperceptible while the Fruit continues crude.

In *February.*

Let us not forget the Royal Winter Pear, which ſeldom ripens till *February*, and proves an excellent Fruit, when gathered from an old Tree that grows in the open Air. It affords us a Treaſure at a Seaſon when all the perfect Species begin to diſappear; but the *Bon-Chrêtien* is rendered the Reſource of all the Winter, by its Beauty and the exquiſite Sweetneſs of its Juice. The *Bon-Chrêtiens* of *Auſch* and *Touraine* have a Fineneſs of Grain that is almoſt melting.

Counteſs. When the *Bon-Chrêtien* is too breaking and coarſe, we can teach the Fire to correct and render it a very agreeable Regale.

In *March* and *April.*

The Months of *March* and *April* have no Stock but this Pear, and the fineſt Kinds of Apples, which continue till after *Eaſter*. Such as the *Calville*, the *Engliſh* Golden Reinette, with the Grey and Red Spice Apples. The little *Api* ſometimes pleaſes the Eye with the Livelineſs of its Colours, and at other times delights the Palate with the exceeding Delicacy of its Juice.

The Number of good Fruits diminiſhes in proportion to the Advance of Winter: The Liberalities of Nature, and the Precautions of the Gardener, are at laſt exhauſted. But when we ſeem to be impoveriſhed, and deſtitute of all the Accommodations we can derive from Fruit, the Miſtreſs of the Family opens a new Conſervatory, which ſhe had taken into her Regulation, and furniſhes the Table a-new with moſt of the Fruits we have already mentioned. In a word, ſhe in ſome meaſure revives the Donations of each circling Seaſon.

Some of theſe Fruits are candied, others are preſerved in Liquors, and a third ſort is dried in a proper manner.

When the Quantity of Sugar equals the Fruit in Weight, the Confection will retain its Goodneſs the longer; but when the Sugar is only half as heavy as the Fruit, this latter preſerves its natural Flavour in a better manner, but is ſooner ſubject to Decay: Its Corruption may however be prevented by a thin Spread of Sugar, which will afterwards conſolidate like Cryſtal round the opening of the Veſſels in which the Fruits are preſerved: Or, inſtead of Sugar, they may be thinly covered with a Jelly of red Gooſeberries. The boiling of the Fruits frequently diſengages their natural Juices, and enriches them with a Perfume that was not imparted even by their compleat Maturity.

Chevalier. This is very evident in Marmalades of Apricots and *Mirabelle* Plums.

Counteſs. Several fine Fruits, and eſpecially the Apricot, the Peach, and the Queen *Claudia* Plum, when they have been ſufficiently boiled with half their Weight of Sugar over a quick Fire, will preſerve their excellent Flavour for a very conſiderable time in Brandy.

The Uſe of moſt Fruits may be prolonged to us, by drying them either on Hurdles in an Oven, or on Tiles in the Sunſhine; which laſt is by much the preferable Method. When the Fruits have reſigned all their Humidity, we may ſhake a ſmall Quantity of powdered Sugar over them, and keep them dry in Boxes. Some ſorts of black Damaſk Plums will retain the Bloom and Azure with which they were tinged on the Tree. *Brugnole* Plums, and thoſe of *Tours*, together with the Cherries of *Montmoranci*, and the *Rouſſelet* Pears of *Rheims*, may be properly dried without Honey or Sugar, or any other Ingredient; and the Pulp is more durable than that which is formed into Confections. Thus may the Generality of Fruits be taught to renew their Appearance in different Figures, and frequently with their natural Flavour, even when their ſtated Seaſon is long paſt.

Count. Theſe admirable Fruits, which would ſoon decay when they have been gathered from the Tree, acquire, by thoſe confectionry Arts, a Conſiſtence that qualifies them for Tranſportation, and they are then conveyed from one Province to another.

Counteſs. The Merit of dried Fruits is ſtill more extenſive; they are wafted over Seas to diſtant Lands; they are ſerved up to the Tables of Monarchs; and proclaim, in the extreme Parts of the World, the Praiſes of the Region which produced them.

ESCULENT PLANTS and ROOTS.

DIALOGUE X.

The PRIOR. *The* CHEVALIER.

Prior. YOU will oblige me, my dear *Chevalier*, by permitting me to tranſcribe that Part of your written Collection which relates to the Choice of proper Fruits to furniſh out a good Kitchen-Garden. I have ſeveral Diſorders to rectify in mine; for my Predeceſſor crowded it with a Number of unneceſſary Plants, and never conſulted any Regulation or Succeſſion of thoſe that are good in themſelves. All thoſe that are of any Value preſent me with their Produce at the ſame Time, by which Means I am ſoon left deſtitute of every Species. What you have ſhewn me, in your Book of Obſervations, is a ſure Expedient for acquiring the beſt Productions the Soil is capable of affording; and it exhibits all that neceſſary and important Regularity, which the Count has obſerved in the fine Kitchen-Gardens ſo much eſteemed by Noblemen of true Taſte, ſince the Concluſion of the laſt Peace. We are indebted to *Lewis* XIV for the Eſtabliſhment of this excellent Method.

Chevalier. Should not Monſieur *de la Quintinie* be rather conſidered as its Author?

Prior. When a private Perſon treats a good Workman with Generoſity, he only requites him for his Abilities; but when a ſovereign Prince careſſes a great Genius, he may properly be ſaid to form it, ſince he unfolds it to View, and animates it to make thoſe happy Efforts, which afterwards ſerve as Models to others. The extraordinary Succeſs acquired by Monſieur *de la Quintinie* was leſs owing to his native Genius, than to his ardent Solicitude to pleaſe at once a Monarch of Taſte and the beſt of Maſters. This Diſpoſition enabled him to make thoſe Diſcoveries in the Art of Gardening, which neither himſelf nor any other Perſons, were acquainted with till then. This Prince therefore has proved a more auſpicious Benefactor to Gardens, than any of thoſe who have rendered their Memoirs dear to Poſterity, by their Attention to procure us a Variety of new Fruits, during their Expeditions into foreign Lands.

Chevalier. Have we many Species that have been tranſmitted to us in this manner?

Prior. You may read in *Virgil** and other Writers, that the Expeditions of the *Greeks* into *Perſia*, *Armenia*, and *Media*, have ſupplied *Europe* with the Citron, Apricot, and Peach-Trees. The Wars of the *Romans* in *Pontus*, under the Enſigns of *Lucullus*, furniſhed that General with an Opportunity of conveying from *Ceraſus* to *Rome* the Cherry-Tree, which was unknown in *Italy* till then. The Princes who engaged in the Cruſades preſented us, in the twelfth and thirteenth Centuries, with the Damaſk and St. *Catherine* Plums, together with ſeveral Species of Grapes, which they had collected in the diſtant Regions they viſited: But the Beneficence of *Lewis*, XIV, in forming Meſſieurs *le Nautre*, and *de la Quintinie*, has furniſhed all *France* with maſterly Gardeners; or, I may rather ſay, that the Gardens of *Verſailles* are become the Academy of *Europe*.

The Art of Gardening, by a proper Improvement of the Energy and Productions of Nature, has ſupplied us with a Profuſion of fine Fruits, whoſe Duration is equal to that of the Year. To this Art we likewiſe owe another vegetable Treaſure; which, though it be not touched with ſuch ſhining Colours, is yet rendered pleaſing by an immenſe Variety, and a Succeſſion of Plants that are always new and always uſeful. I am ſpeaking of Herbs and Roots, which formerly were not produced till towards the Month of *May*, and never out-lived the firſt Returns of Cold. But the judicious Conduct of the Gardener can now prolong them through the whole Courſe of the Year, and cauſe them to flouriſh in ſpite of ſcorching Heats and chilling Froſts.

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* Virg. Georg. 2. Plin. Hiſt. Nat. lib. 12. & lib. 15. Sect. 30. *Hard.*

Chevalier. Is this Branch of Gardening attended with much difficulty?

Prior. Its Succeſs depends on ſeveral little Operations which are ſoon attained by Practice; and it would be loſing Time to give you a particular Account of the Rules. You ſufficiently comprehend what is meant by manuring, harrowing, digging, and ſtocking the Earth; and have no need of a dictionary to furniſh you with the Idea of laying out of Beds of Roots and Herbage, ſloping any particular Bed, raking the Earth with an Iron Inſtrument with two Teeth, to clear away the uſeleſs Graſs that impoveriſhes the eſculent Plants; and of opening Paſſages to the Rain, and facilitating proper Supplies of Water for the Refreſhment of the Plantation. Every one knows what it is to diſpoſe Glaſs-Bells over Strawberries, Melons, and other Productions that are to be raiſed in Hot-Beds; to furniſh a ſupply of freſh Air to one of thoſe Bells, by raiſing it with a wooden Fork; to tread down or break off the leafy part of the Herbage, in order to invigorate the Roots; to check thoſe Growths which riſe too high, by cutting off the Extremities, that the Remainder may be rendered more ſubſtantial; to clear away all Redundancies from Melons, Cucumbers, Grapes, and other Fruits; to bind Endive and Celery, in order to whiten them; to ſpread Coverings of Straw over Artichokes; to raiſe high Beds, and ſink others to a Level with the Earth; and laſtly, to afford them due Degrees of Heat, by ſurrounding them with Horſe-Dung.

Chevalier. I underſtand the Signification of all theſe Terms; but they ſeem to comprehend abundance of Labour.

Prior. They contain nothing that ought to diſcourage you, and the Execution of all theſe Particulars may be conſigned to the Gardener's Boy, while we reſerve nobler Cares for your Attention. It will one Day be your Province to direct the Labours of others; they will render you their Aſſiſtance, and you ſhall charge yourſelf, if you pleaſe, with the Order and Judgment by which their Works are to be conducted.

Chevalier. Suppoſe our Family ſhould intruſt me with the Management of the Kitchen-Garden, in what Manner would it be proper for me to proceed?

Prior. It will then be incumbent on you not to ſuffer any Part of the Garden to remain uſeleſs, nor any Portion of the Year to be deſtitute of Eſculent Plants. You are therefore to acquire a particular Knowledge of the proper Seaſon for planting every Herb and Root; and likewiſe of the Length of Time they ought to continue in the Earth; that by knowing when one Species ſhould be taken up, you may prepare an immediate Succeſſion of others.

Chevalier. I am ſenſible that every Circumſtance is regulated by the Knowledge you recommend; but in what Manner is it attainable? In my Opinion there are Thouſands of different Plants in a Kitchen-Garden.

Prior. This is ſuch a Branch of Natural Hiſtory and Oeconomy, as is very important, and eaſily acquired. A Gentleman is curious to gain a right Idea of the *Mexican Cocoa*, or the *Mango* of *India*. But it is certainly of more Conſequence to him to be capable of giving ſuch proper Orders as will prevent a Sterility of Aſparagus, Peaſe, or Melons in their due Seaſons; and a Knowledge of this Nature is eaſily attained.

Kitchen-Garden Plants, excluſive of Fruit-Trees, may be diſtributed into ſeven or eight Claſſes. Such as Roots, Verdures, or culinary Herbs; Salletting, Furniture of Sallet*, ſtrong Plants, ſweet Herbs, Legumes properly ſo called, and Earth-Fruits.

Chevalier. What do you mean, Sir, by Legumes properly ſo called?

Prior. This Name, in Strictneſs, belongs only to ſuch Productions as Peaſe, Beans, Lentils, *French* Beans, and Lupines; but Cuſtom has extended it even to Roots, and the Generality of culinary Plants.

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* The *French* by Furniture mean thoſe leſſer Herbs that are the Ingredients of Sallets; ſuch, for Inſtance, as Chervil, Creſſes, *&c.*

Chevalier. If you pleaſe, Sir, we will begin with Roots; and I ſhall be glad to know which are moſt uſed, and in what Seaſons of the Year they are planted.

Roots. *Prior.* Roots comprehend Turnips, Parſnips, Carrots, Radiſhes, Salſify, Skirrets, Beet-Radiſhes, and ſome others.

Salſify is of two Sorts, the common and the *Spaniſh*, or Scorzonera, whoſe Growth is larger and more eſteemed than the common Species. Scorzonera is ſown in Spring, and likewiſe in *Auguſt*. It continues two Years in the Earth; but it is cuſtomary to ſow a Bed of it annually, that there may always be a ſufficient Supply. The common Salſify is ſown in Spring, and continues no longer than the *Lent* Seaſon of the enſuing Year. Theſe Roots ſucceed in a Soil that is ſomething rich, and it ought to be extremely ſoft and pliant; otherwiſe the Reſiſtance this Plant receives from a Maſs of Earth that is too compact, forces it into a forked Growth, which deprives it of all its Merit.

Parſnips, and white, red, and violet Carrots, are ſown, during the Month of *April*, in a light and ſandy Soil, which ought to have a moderate Intermixture of Humidity. It will be neceſſary to hoe them, leſt they ſhould be impoveriſhed by Weeds; and all Redundancies ſhould be thinned, as is practiſed on the Salſify, in order to fortify the Plants. Their Growth may likewiſe be enlarged, by cutting off all the green Tops half a Foot above the Surface of the Earth; and if you are deſirous of affording them an additional Improvement, let a heavy Cylinder of Wood be rolled over the Bed in the Month of *September*. The Roots are drawn out of the Earth before the Winter Seaſon, in order to their Preſervation in the Repoſitory, under a Covering of Sand.

Skirrets are to be ſown and planted very thick, becauſe they enlarge their Growth but little, and are only kept till *Lent*.

Turnips are ſown in Spring, that we may obtain a Growth of them in Summer. They are likewiſe ſown in *Auguſt*, and drawn two Months after. They muſt be preſerved in ſome dry Place, where they may be diſpoſed into Heaps, and without any great Precaution, through the whole Winter-Seaſon. The little Turnips of *Champagne* are in the greateſt Eſtimation, and never acquire the ſame Flavour, when they are ſown in any other Province.

Radiſhes require the ſofteſt Soil, and frequent Refreſhments of Water. They are ſown, and afterwards reared, in the Month of *February*, by keeping them covered. They remain in the Earth no longer than five or ſix Weeks, and are then ſown a ſecond Time, between Rows of Lettuce and Endive, in order to obtain a Supply of them through the whole Summer-Seaſon. And thus is the ſame Soil capable of producing a double Growth of theſe Roots.

Beet-Radiſhes are multiplied by Seed: They are ſown and tranſplanted in the Spring, and drawn out of the Earth, before the Seaſon of Froſt, to be preſerved under a Covering of Sand.

Potatoes * are Excreſcencies or Tumours, detached from the Roots of a very high Plant, that has been tranſmitted to us from *Tompinambo* in *Braſil*. Others declare it was originally brought from *Canada*. Theſe Roots are very palatable when boiled, and reſemble the Artichoke in Taſte.

Red *Trufles*, or Apples of Earth, are of different Kinds. Their Subſtance is fleſhy, and vegetates in ſandy ſubterranean Crevices; but they have neither Stem nor Root.

Chevalier. By what Means then can they imbibe the Juices of the Earth, and acquire Acceſſions of Growth?

Prior. They abſorb their Nouriſhment through their Pores, like Sea-Plants; and when they are advanced more or leſs in Magnitude, they grow dry, and are then perpetuated by their little Seeds, which are imperceptible. Swine ſearch for them with great Avidity, and when they have found any by digging into the Earth, they utter their Joy with ſo much Noiſe, as diſcovers their good Fortune to the Shepherds, who immediately drive them away with their Crooks, and reſerve this Acquiſition for more delicate Palates.

My Obſervations on the verdurous Claſs of Plants, will take up as little Room in your Book of *Memorandums*, as my Account of Roots. Verdures, or Culinary Herbs, are Sorrel, Patience, White-Beet, Parſley, and ſeveral other Species, with which you are ſufficiently acquainted.

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* The *French* call them *Taupinambours*, or Pars of the Earth.

Sorrel, as well the pointed as the round-leav'd, is propagated from little bright Tufts, or Seeds which are ſown from *March* to *September*. A Bed of Sorrel may be cut for ſix Years, provided it be nouriſhed from Time to Time, with ſome Inches Depth of Compoſt, and the Soil of a Sewer.

Patience is a Species of Sorrel.

Orach is ſowed in Spring, and is a very tranſient Plant. It furniſhes Soops with an Ingredient of a golden Complexion; and is likewiſe intermixed with ſome forced Meats, that are much eſteemed.

White-Beet is ſown in *March*, and afterwards tranſplanted. It is cut for daily Uſe, and ſhoots out a ſecond Time, like Sorrel. It is likewiſe preſerved, during the Winter, under the Covering of Dung; and its Stalks will acquire a perfect Whiteneſs towards the Cloſe of the enſuing Spring.

Chevalier. For what Reaſon, Sir, is this Plant intermixed with a Growth of Artichokes? Is it in order to whiten them in the Shade?

Prior. It is rather to employ the Field-Mice, who will then ſpare the Artichoke, and exerciſe their Teeth on the Stems of Beet, which prove more tender, and are conſigned to the Avidity of thoſe Animals, without any Reluctance.

Bitter Soops, which, however, are very ſalutary, and frequently preferable to foreign Remedies, are made with *Borrage* and *Bugloſs*. The *Alleluja* is more refreſhing, and is a Species of Trufles, propagated by ſeveral Tufts. Theſe three culinary Plants may be multipied from Seeds, in any Seaſon we pleaſe.

Parſley, as well the common Sort, as the curled and the *Macedonian*, which is more aromatic than the other two Species, is very ſerviceable to us by its Leaves and Roots. It is ſown in Spring, and its Leaves ſhoot out a-new, after it has been cut. The *Macedonian* Parſley may be whitened for winter Sallets, like Celery, which ſeems to be a fourth Species of Parſley.

Spinage is ſown in the Months of *Auguſt* and *September*, and requires an open Spot of Ground of the beſt kind. That which is firſt ſowed is fit for uſe at the latter end of Autumn, and continues even in Winter. The other ſorts, which ought to be carefully covered, are the Manna of *Lent*.

Cabbages, whoſe Species and Utility are generally known, are ſown in Spring, and for ſeveral ſucceſſive Months, in order to furniſh us with a Supply in different Seaſons. They are tranſplanted at firſt very thick, like young Trees in a Seminary, to prevent a large Plot of Land from being waſted, while their Leaves expand but little. They are likewiſe tranſplanted a ſecond time, when they have acquired a competent Vigour, and their mutual Diſtances are proportioned to their due Spread. They are taken out of the Earth before the Winter-Seaſon, and are hung up by the Roots, in order to their Preſervation; or it may be more proper to plunge their Roots, in Sand. We may be furniſhed with this Plant moſt part of the Year.

Cauliflowers are ſown and preſerved like the common Cabbage; their beſt Seeds are brought from *Cyprus*: and if we ſow them during the Months of *Auguſt* or *September* in Trenches, that they may be ſheltered from injurious Weather, and tranſplanted in the Spring, we may be furniſhed before the hot Seaſon, and during the whole Year, with this delicious Plant, which was formerly thought a great Rarity at the end of Autumn.

Brocoli, or the little Leaves which ſpring new from the Stems of Cabbages that have been cut, are uſeful in a Variety of Ragoûts, that are ſerved up at the beſt Tables.

Sallets.

Let us now proceed to Sallets, which always conſtitute an agreeable part of a fine Regale. Though the uſe of Lettuce, Endive and Celery is greatly diverſified in the Kitchen, yet theſe Herbs are the principal Ingredients of Sallets, and are render'd attainable in all Seaſons, by ſowing them every fifteen Days, and by the Inequality of Vegetation, in each Species. Lettuces alone refreſh us for the ſpace of ſix Months and more, by their ſucceſſive Growths. Shell and Paſſion Lettuces reſiſt the Froſt, eſpecially if Care has been taken to diſpoſe them, during the Autumn Seaſon, in a good Expoſition, and likewiſe on a ſhelving Bed. When theſe Precautions have been obſerved, the Plants will begin to cabbage in the Month of *March*. The little curled Lettuce, and the large one, will ſoon cabbage in a hot Bed and under a Bell. The Royal Lettuce, the St. *Germain*, and large white Lettuces, the white *Mets*, and eſpecially the *George* Lettuce, cabbage as ſucceſsfully as one can wiſh, even to the hotteſt Seaſon, when they have been replanted in the natural Earth. We ſow for the Summer Seaſon, the *Bologna* and *Genoa* Lettuces, together with thoſe that are white, red, and green, and all the other Species that ſhoot up with ſome difficulty. We ſometimes bind them, that they may cabbage the better. The *Perpignan* and Paſſion Lettuces ſucceed even in Autumn. The Winter ſeems emulous to engroſs the reſt, and is proud of thoſe Corps of Herbage which his Envy will not ſuffer the Spring to enjoy.

The *Roman* Lettuce, when it has been properly ſown and bound, is always ready to ſupply the Place of other Lettuces, in the Summer Seaſon, when the Heat precipitates their Growth too much.

This Crop is ſucceeded by another of Endive and Celery, which continues through the whole Winter. Endive is ſown from *April* to *September*, and is replanted at large, in different Periods of Time; after which it ſhould be bound, in order to whiten it; and when there happens to be no Conſervatory for preſerving it under a Covering of Sand, it is uſual to place ſeveral of its Plants one againſt another, four or five Fingers deep in the Earth, and the whole is covered with a Surface of dry Dung. The Heads however ought to be aired, by removing the Dung in fine Weather; and this Precaution will preſerve the Plants from rotting.

Celery.

Celery is ſown in the Spring, and tranſplanted in Lines to ſome depth. When it becomes ſtrong, the Earth is heaped up againſt its Sides, as high as the Leaves, which ought to be cut off. It grows white at the Expiration of a Month, a Month, and may be kept in the Conſervatory, where it continues to whiten, if the Air be excluded.

Wild Endive, which is rendered uſeful by its Roots and Leaves, is ſown in *May* and whiten'd for the Winter-Seaſon; and if the Heart be lodged in Earth or Sand, it may be cut three or four Times. Wild Endive.

After this Account of Sallets, it will be proper to acquaint you with their Furniture; which are moderate Intermixtures of ſome particular Herbs. Some of theſe are the Produce of all Seaſons; as Pimpernel, for inſtance, and Chervil; by which latter I mean, as well the common ſort that is ſown every Month, as the Muſk-Chervil, whoſe Growth is uninjured by Froſt. The other Claſſes vary according to the Seaſons; particularly Green Purſlain, which is ſown under a Bell, in *February*; Golden Purſlain, which is ſown in a Bed in the Month of *May*; Garden Creſſes, which are ſown monthly during the Summer Seaſon; Water Creſſes, which are not the Produce of a Kitchen-Garden, but are gathered from the Banks of Rivulets, and running Springs; Bucks-horn Plantain, which is cut like Sorrel; Corn Sallet, and wild Radiſhes, which may be ſown in the Kitchen-Garden, or gathered on arable Land, where they ſpring up ſpontaneouſly every Year.

A greater Moderation will be neceſſary in the Uſe of fine odoriferous Herbs; ſuch as Tarragon, the common as well as the Citron Balm, *Engliſh* Chives, Dittany, Aniſe, Fennel, Balm Gentle, Sweet Baſil, and Rocket.

Theſe fragrant Herbs uſually form the Border of the ſquare Compartments, and are aſſociated with Thyme, Hyſſop, and Sage; Lavender, Marjoram, and Roſemary; Wormwood, and Camomile: Rue, Violets, and Savory. This laſt may be ranged with Peaſe and Beans, which they will ſerve to ſeaſon, with a Mixture of Lettuce.

In order to elude the Severity of ſome Winters, and to ſecure an agreeable Variety for our Tables, due Preparations are made at a proper time, for ſerving up crude Sallets, with ſuch as are pickled. Theſe latter are compoſed of *Catalonian*, or other white Onions, Beet, Celery, and the Tops of Aſparagus; with ſeveral other Herbs and Fruits pickled in Vinegar; ſuch, for Inſtance, as ſmall Cucumbers, Stone Parſley, and Monks-hood, which are the unblown

Flowers of *Peruvian* Creſſes, and very common at preſent; *Criſta-marina*, which is gathered in Places adjacent to the Sea; and Capers which are not the Fruit, but the Buds of the Caper Buſh: and which, if they be ſuffered to continue long on the Plant, will be expanded into Flowers, and produce Fruit. The Caper Buſh delights in Ruins, and the Crannies of Walls.

As the Generality of *Legumes* are very inſipid, a more exalted Flavour is imparted to them from ſtrong Plants, whoſe volatile and poignant Salts may be conſidered as natural Seaſonings. All of them have ſome Similitude to the Nature of an Onion, which is the Species moſt in Eſtimation. The other Claſſes are the Leek, the Scallion *, the Eſchalot, and the Rocambole †. Garlick is ſufficient to excite the moſt languid Palate. It is much uſed in the Country, and may properly be called the *Peaſant's-Alexipharmic.*

Chevalier. It proves a real Poiſon to others; and *Horace*, who had experienced its ill Effects in a Ragoût at the Table of *Mæcenes*, imagined he was infected with all the Poiſons of *Colchas.*

Prior. He had the Satisfaction, however, of loading it with thoſe Imprecations, which you undoubtedly have read. ‡.

Chevalier. I have interrupted the Culture of ſtrong Plants.

Prior. Garlick is ſown at the Beginning of the Spring, and is afterwards tranſplanted, that its Growth may be enlarged in a more unconfined Situation. It is drawn out of the Ground before the Winter Seaſon; and may be preſerved as long as is thought proper, by covering it with Sand, in the Conſervatory, or diſpoſing the Plants, one againſt another, under a large heap of dry Dung.

Onions are ſown and tranſplanted in the ſame Manner. They are trodden down at the Beginning of *September*, to give them an Increaſe of Subſtance, and are preſerved in

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* A kind of degenerate Onion, propagated only from Seed.

† A ſort of Wild Garlick, otherwiſe called Spaniſh Garlick, which is multiplied both by Cloves and Seed; and this latter is about the Bigneſs of ordinary Peaſe.

‡ Epod. Od. 3.

Heaps, from all Humidity and chilling Froſts. They may likewiſe be ſown in *September*, and tranſplanted in Spring, to furniſh an early Supply.

Real *Legumes* are Beans, Peaſe, and Kidney-Beans; the Species of all which are greatly diverſified; and they generally ſucceed beſt in a light and ſandy Soil. Moſt of them require the Aid of long Sticks for their Support, and a free Circulation of Air, between the Rows in which they are planted, in order to render their Produce more plentiful. It is uſual to pinch off Part of the Stalks of Beans, in order to ſtrengthen That and the Shells. This Expedient likewiſe deſtroys Legions of Vermin that faſten on the upper Part of the Stem, where the Verdure is moſt tender. If we ſow Peaſe from Month to Month, and even in the Winter-Seaſon, we may be accommodated with freſh Crops, throughout the greateſt Part of the Year, and without any Difficulty to the End of *October*. The reſt are dried, to be uſed in Winter.

When the Kitchen-Garden has afforded us this Profuſion of Roots and Herbs, and Pulſe, it compleats its Liberalities by ſuch Earth-Fruits as are more eſtimable than all its antecedent Productions. Theſe Fruits are Melons, Cucumbers, Squaſhes*, and other Citruls; Aſparagus, Artichokes, and *our Lady's milky dabled Thiſtle* †. But I ſhall nor include in this Catalogue the three or four Species of Gooſeberries, any more than Raſberries or Strawberries, which have been already ranged among the Claſſes of real Fruits.

Aſparagus.

Let us begin with Aſparagus, whoſe firſt Culture is ſomething long in its Continuance: But if it then requires ſome Degrees of Patience, a Bed of theſe Plants will afterwards afford you an ample Compenſation for fifteen Years, and ſometimes more. We don't wait till a Bed is exhauſted before we plant another, but are careful to form this in a Spot of Ground, which has not, till then, been appropriated to Aſparagus; by which

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* A ſmall Sort of Pumpkin lately brought into Requeſt.

† This is worth Eſteem; for the young Stalk, about *May*, being peeled and ſoaked in Water, to extract the Bitterneſs, either boiled or raw, is a very wholeſome Sallet, eaten with Oil, Salt and Pepper. *Mortimer*'s Huſbandry, Vol. II. p. 154.

Means the intended Plantation will receive a more copious Supply of the Juices neceſſary to its Nouriſhment.

Chevalier. Since this Plant produces ſuch a fine Increaſe, I ſhall be glad to underſtand the Manner of its Cultivation; and I begin to entertain a Reliſh for practical Philoſophy.

Prior. New Plants may be propagated from the Seed; but the moſt expeditious Method will be to raiſe them from rooted Plants that are two Years old. Two Rows of theſe, adjuſted by ſtrait Lines, ſhould be inſerted in Beds that are three Feet and an half in Breadth; and the Path, by which they are ſeparated, ought to have a Width of two Feet. The Beds, which terminate the Square, are allowed but half the Breadth of the others, and are to receive only one Row of Aſparagus. Along the Extent of theſe Lines, ſeveral Holes muſt be opened, about fifteen Inches in Diameter and four in Depth; and the Center of each Hole ſhould be oppoſite to the Point where the Verges of the two other Openings are contiguous. In the Middle of each Aperture, a ſmall Eminence muſt be left, in order to ſupport a Tuft compoſed of two Plants of young Aſparagus. Theſe the Gardener depreſſes with one Hand, while he extends the Roots into a circular Spread with the other. When this Operation is compleated, he covers them with Earth, and then treads it down, that no Vacuity may be left; and in this Manner is every Opening to be fill'd. The Beds ſhould be ſunk a Foot lower than the Level of the Walks. The Earth that was dug up before the Inſertion of the Plants, muſt be laid in a ſlanting Heap on the Path, from whence it ought to be gradually ſcattered each Year with an Intermixture of Dung over the Bed, which will at laſt be raiſed as high as the Path. Four Years after this Plantation has been formed, you will cut very fine Aſparagus, and the old Plant may be then returned, in order to be employed in a different Function.

Chevalier. April ſeems to be the Seaſon for Aſparagus; by what Means then are we furniſhed with ſuch as are very tender, in the Month of *January?*

Prior. They are procured at the Expence of ſome other Beds, which are ſacrificed to promote their Appearance in that early Seaſon. In the Month of *November*, all the Earth is ſcooped out of the Paths, which ſeparate the Beds, and the Hollow is then fill'd with freſh Horſe-Dung, to a Depth of three Feet, and a Width of about two. This Maſs is raiſed eighteen Inches above the Level of the Soil, and when the Heat cauſes the firſt Plants of Aſparagus to ſhoot up, they muſt be covered with Bells, through which the Light tinges them with the fineſt Green. Theſe Bells ſhould be covered with a Surface of dry Dung, during the Froſt; and when any Snow has fallen, it muſt be carried away with the Dung, to prevent its chilling the Plants, and the freſh Dung, which is ſubſtituted in the room of the other, ought to adhere to the Bells, and not to the Aſparagus; becauſe it will whiten them, inſtead of promoting their green Tincture. When the Paths are likewiſe properly recruited with freſh Dung, and raiſed to the Height they loſt by the Diſſipation of the former, we may be certain of a Growth of green Aſparagus in *January*; and it will continue for a Month or ſix Weeks in each Bed, and will be likewiſe renewed by proper Renovations of Heat, till ſome other Plantation attains its natural Maturity at the Return of Spring. The Beds that have been rendered productive by this artificial Heat, will require four Years for the Recovery of their original Temperament, and will then be qualified for a ſecond and laſt Operation.

Artichokes.

The Culture of Artichokes is attended with leſs Difficulty. The whole conſiſts in lodging them in an excellent Soil, enriched as much as poſſible, in which the Shoots that have been detached from the ſtrongeſt Plants, with a few of their Roots, muſt be inſerted Chequerwiſe, and at the diſtance of three Feet or more from one another, if the Soil be ſtrong, that they may have ſufficient Room to expand their large Foliage; they ſhould likewiſe be ſheltered from Froſts, by forming the Earth round their ſhortened Leaves, or by covering the whole with long Dung ſufficiently dry. The beſt Shoots are white, in the Part where they adhere to the Roots; thoſe of a moderate Goodneſs are formed into a Nurſery to be tranſplanted, as Occaſion may require, into the Places of ſuch as die away.

When the Stocks are ſtrengthened, and checkt in their autumnal Growth, they will yield Fruit in the Spring; and thoſe which are planted in this Seaſon will be productive in Autumn. When the Stock, which begins to unfold its Fruit in the Spring, is cut low, it will ſhoot forth new

Heads in *September*. Their Culture muſt be regulated by theſe Obſervations, in order to ſecure two Growths of Fruit.

Chevalier. As the ſame Plant is capable of ſuch a double Fertility, we need only ſuffer one Part of it to ſhoot up in Spring, and check the other, which we intend to reſerve for the Autumn Seaſon.

Prior. This Precaution may be proper, when there is only one Bed of theſe Plants. The Artichokes of the ſecond Growth, and eſpecially thoſe that are Purple-coloured, being diveſted of their Leaves, and ſtrung like a Row of Beads, with a Slip of Paper between each, may be preſerved the whole Winter, in a dry Place, in order to be uſed as an Ingredient with Muſhrooms, in Ragoûts, and Works of Paſtry.

Chevalier. How long will a good Plant laſt?

Prior. It generally decays at the End of four Years. Part of it, however, may be annually renewed, by which Means the Diſcontinuance of its Fruitfulneſs is prevented, and even that Part of it which we deſtroy has its particular Uſe. We collect the Leaves of thoſe Artichokes that are to be ſucceeded by others; we then bind and cover them with Straw, which ought to exclude the Air from every Part but the Top. They will then whiten like *Spaniſh* Cardons, whoſe Culture correſponds very much with that of Artichokes. This String of Leaves may be preſerved the whole Winter, in the Sand of the Conſervatory, and they will then be perfectly white, and loſe all their bitter Flavour.

Chevalier. Let us now proceed to the Culture of Melons.

Prior. You forget the Cucumber, as well as the Citrul and Pompion; but we ought not to diſregard them. They are uſeful in Soops and Ragoûts, and furniſh Numbers of People with Bread and Medicinal Remedies. Their Cultivation would be entirely agreeable to that of the Melon, were they formed with the ſame Precaution.

The Culture of Melons.

The Melon is one of the moſt perfect Productions of the Kitchen-Garden, and one of the moſt delicious Refreſhments that Nature, amidſt her conſtant Attention to our Wants, affords us in the Seaſon of violent Heat. In order to raiſe it to as much Perfection as we deſire, it will be neceſſary to chuſe an Expoſure to the *South*, and a commodious Shelter, which ought to be ſecured againſt injurious Winds, by Mats properly diſpoſed. The Beds ſhould be raiſed within a Foot of one another, that they may be heated more effectually, by filling the Interval between them with new Dung, which ought to be recruited from Time to Time. Theſe Beds muſt be covered with a Surface of excellent Mould eight or nine Inches in depth, and intermixed with freſh Earth, together with Aſhes and the Huſks of Grapes that have been preſs'd. The Melons are ſown in *February*, after the Seeds have been ſteep'd, ſeven or eight Hours, in Water, or Wine ſweeten'd with Sugar. The Seeds are ſown, by ſetting four in each of the Holes that are open'd along the Line, and which ought to be at the mutual Diſtance of two Finger's breadth. Small Salleting may be likewiſe ſown between the ſeveral Lines.

When the young Melons have ſhot forth a few Leaves, they ought to be tranſplanted into another Bed, and five or ſix of them ſhould be placed under each Bell. Theſe muſt be covered with Straw, to preſerve the Vines from Froſt, as well as from ſultry Winds, which would infallibly ſcorch them. If the Bed ſhould prove too hot, it will be neceſſary to thruſt a Pole into its Earth, at proper Intervals of Diſtance, that a ſufficient Number of Vents may be open'd, for the Evaporation of the immoderate Heat. When the Vines have attained a good Degree of Vigour, they ſhould be taken out of this Nurſery and tranſplanted at Leiſure, with their adhering Earth, into a third Bed, and at the Diſtance of two Feet from one another. All luxuriant Shoots ſhould be retrenched, in order to invigorate the reſt of the Plant; but its Improvement is rather obſtructed, than promoted, by the injudicious Practice of depriving it of the two ſeminal Leaves, during its firſt Growth; and afterwards of the Male-Flowers, which are improperly call'd falſe Flowers, ſince the Plant has not received theſe Appendages in vain *. You are ſenſible, Sir, that they render it very important Services, at the completion of which they wither of themſelves, without making it neceſſary for Man to aid the Operations of Nature, and to reform her, as tho' ſhe had err'd in her Proceſs.

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* See Dialogue XV. of the firſt Vol.

Chevalier. But don't we act as if we thought it neceſſary to rectify her Conduct, when we thin the Fruits on a Tree, and clear away whatever is ſuperfluous?

Prior. That Proceeding is not to be conſidered as any Reformation of her Works. Man has an undoubted Power to form his Choice, and if he prefers a ſmall Quantity of very amiable Fruits to a Profuſion of ſuch as are not altogether ſo alluring, he may ſecure a large Share of Nouriſhment to ſome, by retrenching the Growth of others, in a very regular Manner, and without the Implication of any Deficiency in Nature. This Method is properly obſerved in the Cultivation of Melons, and when there is a Certainty of acquiring two or three that are excellent on one Stem, all the others may be ſuppreſs'd, in order to embelliſh thoſe that are ſelected from the whole Growth.

When the Night happens to be mild and favourable, the Bells ſhould be removed, that the Fruit may be forwarded by a free Circulation of Air, and frequent Refreſhments of Water. When the Melons have attained the Size of a large Orange, it would be ſufficient if they are water'd once in three Days; and when they have at laſt acquired their due Dimenſions, all Waterings may be entirely diſcontinued: Dryneſs itſelf being then proper to give them a more ſweet and vinous Flavour, than they would receive from the Sap, were it diluted with a large Quantity of Water.

Chevalier. What a ſurprizing Variety of uſeful Fruits and Plants do we derive from an inconſiderable Spot of Earth!

Prior. I am not ſo much aſtoniſhed at the rich Abundance of thoſe Productions, tho' even this has the Air of a Prodigy, as I am at the Wiſdom with which they are all diſtributed, in proportion to the Neceſſities that are peculiar to the various Seaſons and Climates. When the Earth is at Reſt in the Winter Months, and ſuſpends its Fertility, in order to be re-impregnated with a new Supply of Juices, we enjoy an ample Proviſion of ſuch Fruits and Herbs as are ſubſtantial, and capable of a long Duration. The Earth in the Summer Seaſon daily diverſifies its Liberalities, and ſeems attentive to preſent us with ſuch refreſhing Fruits, as are proportioned to the Fervours of the Solar Heat To this Claſs we may refer Stone Fruits, Melons, Figs, Peaches, and melting Pears. The Fruits are likewiſe as exactly adapted to the Climates, as they are to the Seaſons. When we advance towards thoſe Regions where the Sun's daily Revolutions are vertical to the Inhabitants, we conſtantly meet with Fruits, that are not only melting, like the Melon, but likewiſe acid, and repleniſhed with Juice of an icy Coolneſs, qualified to allay the immoderate Rarefaction of their Blood. Such, for Inſtance, are Lemons, and Citrons; Oranges, and Pine-Apples. When I return from the Torrid Zone, towards our Climate, I begin to diſcover the Vine, and become ſenſible that it appears in thoſe Parts of the Earth, where it is capable of acquiring a ſufficient Maturity, in conſequence of which, the Inhabitants of the Temperate Zone and the *Northern* People, whoſe Blood is condenſed by the Cold, are accommodated with ſpirituous Liquors, capable of counterpoiſing the groſs Weight of Air that gravitates upon them.

Chevalier. But would not this Liberality of Nature be entitled to higher Strains of Gratitude from us, if it afforded all ſorts of Fruits of every Region, and every Seaſon?

Prior. The great Author of Nature is always liberal to his Creatures; but he acts with Oeconomy in the Diſpenſation of his Gifts. If his Bounties had no Limits nor Regulation, they would ſoon be productive of the greateſt Diſorders; whereas his Oeconomy is the Source of innumerable Advantages to Society. This makes it neceſſary for Man to be in conſtant Exerciſe; and he is guarded from a Multitude of Vices, by not being permitted to indulge himſelf in Indolence and Inactivity. He not only finds himſelf neceſſitated to labour for his Support, but is made ſenſible that the Fruits of the Earth are diſtributed in ſuch a Manner, as obliges him to exert all the Virtues and Talents he has received, that he may acquire a Participation of thoſe Bleſſings; the Refuſal of which to one Country, while they have been accorded to another, introduces a Train of urgent Neceſſities, ardent Deſires, and induſtrious Efforts. The Accommodations that are proper and peculiar to each Province, place the ſeveral Inhabitants in a mutual Dependence on each other. Their Wants are the ſocial Ends that unite them, and they create a kind of Proximity between the moſt diſtant Regions, by the Means of Navigation, and a reciprocal Exchange of their reſpective Productions.

ductions. Agriculture and Commerce, which are the two Maſter Springs that impart Motion to Society, afford Mankind an Opportunity of exerting their Prudence in a right Judgment of mercantile Commodities and Manufactures, and the proper Seaſons for their advantageous Sale; and likewiſe preſent them with a Variety of Conjunctures, in which they may diſplay their Patience, in a Series of Labour, and their Fidelity, in an Intercourſe of Traffic, as well as their Œconomy, in the Uſe of thoſe Things, which are not always ſo attainable as they may be inclined to wiſh.

The ſame View is evident in the Inequality of Seaſons. Man in ſome particular Months of the Year, muſt exert all the Vigour he poſſeſſes. He is obliged to employ himſelf in Tillage and Planting, in Sowing and Harrowing, in Replanting, Gathering and Selling; and is frequently charged with moſt of theſe Occupations at the ſame Time. In another Seaſon, he muſt have Recourſe to a Number of Precautions; he gathers in whatever he has been able to ſecure from the Rigour of Winds, and the Inclemency of a bad Seaſon. He ſtores up, he arranges, he preſerves the Produce of his Land; and at his Leiſure makes the neceſſary Preparations for the enſuing Year. This moderate Exerciſe, which, to him, has the Effect of Repoſe, enables him to reſume more active Labour in the returning Spring.

Thus has the Deity been pleaſed to honour Man, and to habituate him, if poſſible, to his providential Operations. He awakens and allures him to Induſtry, by conſigning to him the Productions he has cultivated, as well as thoſe, which he is ſedulous to acquire from other Quarters; and by reducing him to the Neceſſity of becoming deſtitute of many Enjoyments, when he neglects to procure them; or of ſeeing them degenerate, when he ſuffers himſelf to be remiſs in their Cultivation.

HUSBANDRY.

DIALOGUE XI.

The PRIOR. *The* CHEVALIER.

Prior. SINCE we are to be alone for a few Days, we may lengthen our Walks as much as we pleaſe, without incommoding any Perſon whatever.

Chevalier. Let us take a View of the Country to-day.

Prior. This Path leads us to a rural Scene of arable Lands, where you will ſee a Garden plan'd out in a new Taſte.

Chevalier. I am perſuaded, Sir, that it pleaſes you, becauſe an Air of perfect Simplicity reigns thro' all the Proſpect.

Prior. As plain and undiverſified as this Culture appears, it has coſt more Labour than the fineſt Parterre.

Chevalier. I think, the Huſbandmen, in that Field, make but a ſlow advance with their ſix Horſes. Do but obſerve, Sir, what vaſt Clods they have to turn; can Seed be ſown in ſuch Maſſes of Earth?

Prior. They defer that Part of their Huſbandry till the Month of *September*; and the Land muſt firſt be ploughed a-new.

Chevalier. The Labours of theſe poor People are very fatiguing; and I really pity their Condition.

Prior. You have Reaſon to be affected at their laborious Life; but we are Objects of greater Compaſſion than they, whenever we are unemployed. They are only acting in their proper Order.

Chevalier. I grant it, Sir; but there is ſomething in that Order, which aſtoniſhes and perplexes me. When I cultivate a Flower, I am only engaged in a pleaſing Amuſement; but when Corn is to be raiſed, the Fatigue is exceſſive. Would not the contrary of all this have been much more reaſonable? I appeal, Sir, to your own Judgment in this Particular. Let it be a difficult Employment to propagate a Bloom of Violets and Jonquils; thoſe who are willing to ſubmit to the Fatigue may raiſe theſe Flowers if they pleaſe; but I ſhould think Bread ought to be procured without any Toil.

Prior. Our Fondneſs for a Life of Eaſe, naturally inclines us to think in that Manner; but if this Eaſe be the very Circumſtance which the Author of Nature intended to baniſh, can you imagine that you have any juſt Cauſe to complain? We are the Workmanſhip of his Hands, and he has regulated our State of Being, agreeably to his own Will. Let us therefore be attentive to the Wiſdom of his Ordinations. Flowers and Fruits, the Pleaſures and neceſſary Accommodations of Life, are all granted to Labour, and refuſed to Indolence. But there is the utmoſt Difference between the Labours that furniſh Man with ſuch Enjoyments as only miniſter to his Delight, and thoſe that ſupply him with his Bread. The firſt are entirely free, and ſeldom attended with Toil; the ſecond are indiſpenſable and fatiguing. Providence was inclined to gratify Mankind with Flowers, and a ſufficient Quantity of fine Fruits, upon eaſy Terms; and the Principal Merit of theſe Benefactions conſiſts in the pleaſing Impreſſions they communicate to their Poſſeſſors. The graceful Air of the Gift would have been diminiſhed, in ſome Meaſure, had it only been attainable by Toil, and Mankind would naturally diſregard Satisfactions ſo little neceſſary, were indefatigable Labour the only Means of acquiring them. The Cultivation therefore of Flowers, and even of moſt Fruits, is only an amuſing Employment to Man, and the Exerciſe of an elegant and ingenious Curioſity, which requires nothing more than the Exertion of a moderate Induſtry; which, inſtead of proving a Fatigue, is rather a Recreation to him, after his daily Labours, and is a Work that entirely reſults from his own Choice.

The Circumſtances are all different with reſpect to Herbs and Roots, that are Part of his Aliment, and Bread that conſtitutes his chief Support. He is not left in the ſame State of Indifference, in regard to theſe Particulars; and as they are rendered abſolutely neceſſary to his Welfare, they are to be acquired by a Series of real Labours, daily Aſſiduities, and the copious Sweat of his Brows. In a word, Providence has rendered theſe Toils as neceſſary to a Man, as the Bread he eats, and altogether as intereſting as Life itſelf.

The Fecundity of the Earth.

But as painful as this Labour may prove, it is far from overwhelming him with its Fatigue. The Earth, which requires the Aid of his Hand, animates him to Induſtry, by its faithful Compenſation of his Cares. Whatever it borrows of the Huſbandman, it punctually repays him, and with ſuch an Increaſe as almoſt exceeds Belief. It multiplies the Seed it receives, in proportion to his Diligence in its Cultivation; and is not ſubject to thoſe impairing Decays that are often occaſioned by a Length of Years. It annually aſſumes the Graces and Vigour of a lively Youth, thro' a Succeſſion of many Centuries; and when its pregnant Womb has teemed with the moſt fertil Harveſt, the Repoſe of a ſingle Year, or even of a Winter, is ſufficient for the Reparation of all its Loſſes.

Chevalier. I confeſs my Miſtake, and am now convinced, that Neceſſity is the propereſt Motive to incite Mankind to Induſtry. But is the Earth, Sir, ſo fertil as you are pleaſed to repreſent it? I think, at leaſt, there are ſeveral Soils abſolutely incapable of producing Corn.

The Variety of Soils relative to that of the Seed.

Prior. All Sorts of Soils are not qualified for the Production of all Sorts of Seed. Some are ſo light and ſandy, that all the Juices, which have been depoſited in them by the Air, are evaporated in a ſhort Time. Corn therefore, which requires a ſtrong Nouriſhment, would be incapable of ſubſiſting in ſuch a Situation. On the other hand, there are Soils ſo impliant and clayey, that they are almoſt impenetrable to every kind of Seed. And laſtly, there are others that preſerve a Mediocrity, more or leſs juſt, between thoſe two Qualities, and are capable of different Productions, in proportion to their correſponding either with the Nature of Sand, or with that of Clay.

This Diverſity of Soils is the Effect of a wiſe Deſign, and is evidently adapted to the Variety of Seeds; ſome of which require a light, and others a groſs Earth; while a third Claſs delights in a Soil of an intermediate Nature.

Tho' Corn is intended, by the Deity, to be our chief Support, we are not deſtitute of Variety, in that kind of Food, ſince he has multiplied it into ſeveral Species; ſuch as Wheat, Rye, and Barley; Millet, and Rice; Oats, Mayz, and Lentiles; Peaſe, and a Number of other Kinds. Each particular Species of Grain has its Uſefulneſs and Propriety, of which Man is always the ultimate End. Some are intended for his own Nouriſhment, others for the Subſiſtence of the Beaſts that ſerve him, or to fatten thoſe whoſe Fleſh is part of his Food. Some Species of Grain furniſh him with Liquors; the moſt common and nutrimental of which is Beer. This imitates the ſpirituous Quality of Wine, and ſupplies the Want of it, in thoſe Years when the Vine has been deficient; and in thoſe Countries that are not favourable to its Growth.

Wheat, which is the ſtrongeſt Nouriſhment and Support of Man, ſeldom ſucceeds but in ſuch Soils as are hot or vigorous, or, at leaſt, marſhy. Rice, which is likewiſe a very ſubſtantial Food, delights in a moiſt and fat Land. Rye proſpers in a moderate Soil, and is ſometimes contented with the lighteſt. Barley, Oats, Buck-Wheat, and Millet, thrive in a ſandy Ground, and will likewiſe grow in the beſt Soils, when they have been well pulverized.

Rice acquires it greateſt Perfection in *Aſia*, where it is the uſual Food of the Inhabitants. There are likewiſe ſome Soils in *Europe*, where it is cultivated with Succeſs, as in *Piedmont* and *Spain*. Wheat and Rye are the Support of the *Weſtern* Nations, but their Uſe has been communicated to ſeveral Provinces in *America*, where they prove very proſperous. *Mayz*, or *Turky* Corn, was originally the Food of the *Americans*; but is now cultivated in ſeveral Parts of *Aſia*, and in our Provinces of *Breſſe*, *Burgundy*, and the *Franche Comté*.

The Variety of Soils facilitates the Progreſs of all Sorts of Grain, and our Accommodations are multiplied by the Diverſity of theſe. A Grain which ſerves for Food in one

Country, is frequently employed as a ſalutary Remedy in another. When any unforeſeen Accident has deprived us of the Corn that was ſown before the Winter-Seaſon, ſome other Species of Grain, which we ſet in the Month of *March*, is ſubſtituted in its Stead. A Caſualty of this Nature happened in the Year 1709; but a Neighbourhood of different Soils affords the Inhabitants of moſt Countries an Opportunity of regulating the Choice or Intermixture of the Grain they ſelect for their Food, agreeably to their Taſte and Circumſtances. In Conſequence, therefore, of the wiſe Proportion, which Providence has eſtabliſhed between the Nature of Lands, and the Diverſity of Grain; every Soil is capable of ſome Fertility; every material Want is relievable by a timely Supply, and every Temperament of Earth may be rendered ſatisfactory to the reſpective Inhabitants.

Chevalier. But by what Means, Sir, can even the richeſt and moſt compact Soils be rendered fertil, without any Intermiſſion, and from whence do they derive the Subſtance of thoſe Harveſts which are annually reaped?

The Sources of the Earth's Fecundity.

Prior. The Aid of Heaven, and the Cooperation of Man, are neceſſary to form good Soils, and continue their Fertility. Inſtead of receiving from the Air thoſe chimerical Influences, which were formerly ſuppoſed to deſcend from the Moon and Stars, they derive from it thoſe ſubſtantial Emanations, which are compoſed of Water, and Oil; Salts, Air, and Fire; by whoſe Miniſtration the various Soils are really augmented, and worked into Action, while Man's Province is to furniſh their Culture and Manure.

The Effects of Culture frequently open the Surface of a Field, and facilitate the Influx and Diſtribution of the Principles of Vegetation; and yet the Multitude of Seeds that imbibe them, and the Evaporation, which is proportioned to the porous Qualities of the Soil, would ſoon exhauſt it of all its Fertility, if it were not recruited with a Manure capable of ſupplying it with a new Subſtance and a freſh Flow of Juices.

Strong Soils require much Cultivation, and are ſatisfied with a light Manure; but Lands, that are thin, demand a ſtrong Manure and a light Culture.

As ſtrong Soils are naturally compact, and have not many Vacuities between their conſtituent Parts; and as their Surface is frequently hardened like an Incruſtation; their Earth continues in a State of Chillneſs, Intractability, and Inaction, and they remain unſuſceptible of the Sun's Influence, and the Impreſſion of the Atmoſphere, till they have been meliorated, by Huſbandry, to a conſiderable Depth, and are entirely reduced to a fine Powder, whoſe Parts are eaſily ſeparated.

Lean Soils, on the contrary, being all incompact, and without a ſufficiency of Depth, their Sterility would be increaſed, by being opened too much, and by the Inverſion of their lower Earth, to the Surface. It will be moſt proper therefore, to afford them but a ſuperficial Culture. This Diverſity of Soils has occaſioned a Difference in the Ploughs that are appropriated to them.

Chevalier. I thought they had been all formed by the ſame Model.

The Plough.

Prior. Let us go and take a near View of that, which appears at the farther End of the Field.——This you ſee is ſtrong, and armed, firſt with a larger Coulter, which cuts the Earth, and diſpoſes it to ſuſtain a more ſpacious Opening; ſecondly, with a large Share, or triangular Iron, with a pointed Extremity, and two flat Sides, for the more commodious Enlargement of the Furrow, and to break up the Soil, as it follows the Track of the Coulter; thirdly, with a large Earth Board, whoſe Situation being always towards the Furrow that is already traced out, throws off, and inverts on the ſide of it, the greateſt Part of the Earth of the new Furrow, which is opened next. This heavy Plough is reſerved for ſtrong and deep Soils, over which it is drawn by four, and ſometimes by eight or ten Horſes, or as many Oxen. There is another ſort of Plough, much lighter and leſs than this, and which operates ſufficiently, with a ſhort and narrow Share. When only two Horſes work this Plough, it will throw up a thin Soil as much as is neceſſary; becauſe the Huſbandmen are cautious of opening it to a conſiderable Depth, leſt either the nutrimental Moiſture ſhould evaporate, or a worſe Vein of Earth than that, which is furrowed, ſhould be raiſed to the Surface.

Chevalier. The Quarter where we walk at preſent is covered with the fineſt Verdure; but I muſt deſire you, Sir, to inform me, why that diſtant Spot remains uncultivated.

Prior. Arable Lands are generally ranged into three Diviſions, which are almoſt equal. One of theſe is ſown, before the Winter-Seaſon, with Wheat and Rye; or elſe with Meſlin, which is a Mixture of both. The ſecond Diviſion muſt be allowed a Winter's Fallow, and may be ſown in the Spring, with the ſmaller Grain; as Oats, and Barley; Lupines, Lentiles, and ſome other kinds, which are called *March*, becauſe they are ſown in that Month, or rather in *April.* The third Diviſion is ſuffered to lie fallow, but is not altogether inactive, during that ſeeming Repoſe; for beſides ſome Branches of Huſbandry that afford it a proper Exerciſe, it is continually receiving fertil Supplies. It acquires a Richneſs from ſoft deſcending Snows; it is moiſtened by genial Dews and Rains; and even the Winds waft prolific Salts and Juices into its Boſom. It treaſures up theſe Gifts for the enſuing Year; and its Inactivity, inſtead of being a Relaxation from preceding Toils, is a Series of Preparatives, and an Acquiſition of Materials for new Productions.

Chevalier. Bread is Part of my daily Diet; and yet I ſincerely acknowledge, that I have but a confuſed Idea of the Methods by which Corn is raiſed. Numbers of other Perſons, by being confined, from their Infancy, to the Walls of *Paris*, like myſelf, have only obtained a tranſient View of theſe Things, and never beheld them in their regular Succeſſion. It would therefore be ſome Satisfaction to me, to have a right Knowledge of the ordinary Culture and Progreſs of Corn.

The Order of Tillage.

Prior. Let us begin with Tillage. There are three Seaſons, wherein this Branch of Huſbandry is abſolutely neceſſary for Wheat and Barley. The firſt is performed in Autumn, on thoſe Lands that have produced a Harveſt of the *March* Grain. This Operation, inſtead of opening the Earth to any conſiderable Depth, only prepares it in a proper Manner, and deſtroys the ſprouting Weeds. Some Farmers defer this Tillage to the End of Winter.

The ſecond is performed in Spring; and, in ſome Parts of the Country, at *Midſummer*. The Plough ought to work deep in ſtrong Soils, as it likewiſe ſhould in the third Tillage, which precedes the Seaſon for Sowing. Theſe three Operations are ſometimes inſufficient, and it will be neceſſary to break the Land a-new, by cauſing the Plough to paſs tranſverſly over the former Furrows *. But the Huſbandmen are cautious of having Recourſe to this Expedient, in Lands that are too moiſt and ſpungy, where the Furrows ought to be ſunk deep, and in a Poſition as ſlanting as poſſible, to facilitate the Diſcharge of Water.

This Branch of Huſbandry, twice performed, will ſuffice for the *March* Grain; the one before Winter, the other in Spring. I ſhall not dwell on that Part of Tillage, which is practiſed as ſoon as the Land has been ſown; ſince it is not ſo much a Cultivation of the Soil as a Precaution for covering the Seed. This Operation is performed on ſtrong Soils, with a Harrow, which is a large Inſtrument made of heavy Wood, armed with Iron Spikes, or little wooden Pegs, in order to ſcatter the Earth lightly over the Seed, which would have too deep a Surface of Ground to pierce through, were it covered by the working of the Plough-Share. In light Soils, this Labour is performed with a little Plough, that the Earth may more effectually cover the Seed, which would ſoon be diveſted of all its requiſite Juices and Subſtance, if only a thin Surface of Soil was drawn over it by the Harrow.

Manure.

Manure is altogether as important as Tillage. It is ſometimes required for the beſt Lands, and is always neceſſary to thoſe that are weak. A good Soil is not dunged, when we require nothing from it but a ſmall Grain; but even this will not be produced by weak Land, without the Aid of a Manure.

Chevalier. What are the particular Ingredients that give Fertility to Land?

Prior. This Manure, which compleats what the Dews of Heaven had begun, is the moſt contemptible Subſtance upon the Face of the Earth; and is chiefly compoſed of the Litter taken from Stables, and Sheep-folds, Dove-Houſes,

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* ——proſciſſo quæ ſuſcitat æquore terga,
Rurſus in obliquum verſo perrumpit aratro. Georg. 1.

Hen-coops and the Dwellings of all domeſtic Animals, furniſh Manures that differ in their Degrees of Heat; and which being blended together, as well as quenched and corrected by each other, repleniſh the Land with all the Fertility it had loſt.

We may add to this Intermixture all Sorts of Straw, Stubble, Shells of Pulſe, uſeleſs Leaves, and the Refuſe of Garden Herbage. Rotten Wood has ever more Subſtance and prolific Salts, than any of the other Manures I have mentioned. Prudent Farmers throw together, either in one or ſeveral Heaps, Chimney and Oven-Soot, together with Rags, the Hair of Animals, Cuttings of Leather, Skins of Beaſts, Bark of Trees, Lees of Wine, Sediments of Oil, Malt-Duſt, Tanners Bark, and Dyers Lees. They likewiſe waſh the Whole with Soap-Suds, which are commonly thrown out of the Laundry as uſeleſs; though Soap is impregnated with Oil Salts, which are the principal Elements of Plants.

No Kind of Manure has more prolific Qualities than the Soil which is ſwept from populous Cities, and eſpecially thoſe where a great Number of Kitchens, and Dyers of Wool, are continually diſcharging into the Streets a fat and oily Sediment, which is very beneficial to Corn.

The Huſbandmen, in ſome Conntries, ſave the expenſive Carriage of Dung, by imparking Sheep, and ſometimes Cows, on the Land intended to be manured.

Parks.

Chevalier. I have ſeen ſeveral Parks of this Nature. They are ſquare Incloſures *, made of Oſier-Twigs, in which the Sheep are ſhnt up during Night. But how is it poſſible for them to continue expoſed in ſuch a Manner, to the Injuries of the Air?

Prior. The Nights are mild and ſupportable, from the End of *June* to *November*; and Parks may be uſed without the leaſt detriment during that Period. The Wool of the Sheep is likewiſe ſoftned, and brought to Perfection, by its being alternately expoſed to Dews and Sun-ſhine. It is always cuſtomary to form two Parks or Incloſures, contiguous to each other; one of which is full, and the other continues empty, becauſe the Sheep are removed out of one into the other, at three in the Morning, that a ſucceſſive Warmth may be imparted to all the Land. The two Parks are afterwards transferred to a new Situation, in order to perform the ſame Functions the next Night; and with theſe the Shepherd likewiſe removes his little rolling Hut, where he ſhuts himſelf up in the Evening, with his faithful Dog, that he may be prepared to guard his Flock from Wolves and Robbers.

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* Theſe Incloſures are formed of Oſier-Hurdles, ten Feet in Length, and ſix in Height, and are ſupported by Stays laid croſs the Tops and ſlanting towards the Earth. Four of theſe Hurdles will incloſe fifteen Sheep. On each Side another Hurdle is diſpoſed only in Length, in order to contain as many fifteens of Sheep. But if a Hundred of theſe Cattle are incloſed in a long Square, which has only one Hurdle for its Breadth, another Hundred may be introduced by the Addition of one Hurdle in Breadth, by which Means the Incloſure will be immediately doubled.

Chevalier. The Peaſants, in ſome Parts, burn the Turf that covers their Land; and I could be glad to know what Advantage they derive from a Practice that covers all the Country with a hideous Gloom of Smoak.

Prior. Your Curioſity, Sir, ſhall be ſatisfied. Beſides the Manures I have already mentioned, there is another which is exceedingly eſteemed, and qualified to ſupply the Place of all the reſt, eſpecially on fat Lands, if a ſufficient Quantity of it can be obtained. The Manure, of which I am ſpeaking, is Aſhes, and particularly thoſe of Wood, or any other Matter that has a due Subſtance, and is impregnated with nutrimental Particles. Soap Aſhes * are found, by Experience, to be very uſeful. The Aſhes of all Sorts of Herbage and Brambles are the only Reſource of the Inhabitants of *Ardennes*, and ſeveral other Countries; where the Growths of Moſs, Fern, and Heath, denote a natural Sterility of Soil. Thoſe poor People peel their Lands; or, in other Words, pare off the Turf, with whatever adheres to it; after which, they form it into little Heaps, leaving a Vacancy in the lower Part, and then ſet it on Fire. When it has been thoroughly conſumed, they ſcatter the Aſhes over the Land, which is qualified by this Expedient for producing a fine Crop of Rye. They ſometimes perform the ſame Operation in their Foreſts where, as ſoon as the Timber has been felled, and the ſaleable Wood carried off, they burn the leſſer Branches, with the Chips and Leaves, in Conjunction with Thorns and Briars. They afterwards break up the Ground with a Pick-Ax, it not being practicable for the Plough to paſs amidſt the Stumps that remain n the Earth. The Aſhes, which they then ſcatter upon the Land, are always repaid with a rich Harveſt.

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* *Mortimer's* Huſbandry, Vol. I.

Some Farmers reſerve Aſhes, Soot, and all Manures of an eaſy Carriage, for the moſt diſtant Parts of their Land. Others intermix Aſhes with Straw, and carefully reſerve the whole, either in a Pit lined with Brick or Stone, or, at leaſt, on a clayey Soil, where nothing can be loſt. The moſt udicious Farmers have likewiſe the Precaution to make an advantageous Uſe of the Projection of a Roof, when it is capable of ſloping over the whole Heap, and preventing the Rain, or any other Flow of Water, from waſhing away the Oil and Salts which conſtitute the chief Merit of the Manure. When a Stock of Compoſt is not properly ſecured at the Bottom, or covered with ſome Shelter, it frequently degenerates into a uſeleſs Sediment.

Chevalier. I ſhall be careful to remember this Obſervation.

Prior. This Compoſt is ſpread over the Land, at the ſecond or third Tillage, but moſt commonly at the ſecond; that the Salts may be ſufficiently diſſolved, and blended with the Earth, before they can ſuſtain any Diſſipation.

Chevalier. It is very ſurpriſing, that our Food ſhould be procured by the Inſtrumentality of ſuch vile and nauſeous Materials.

Prior. Say rather, my dear *Chevalier*, that it proves a very happy Circumſtance, and is juſtly entitled to our Admiration; ſince thoſe Things that are moſt offenſive to us, are ſuddenly changed into the Accommodations we chiefly need.

Chevalier. I enter into your Thoughts, Sir, with Pleaſure, and am ſenſible that my Conceptions are always erroneous, when I indulge any complaining Expoſtulations againſt the Works of God. This Maſs of Impurities would be daily accumulated all around us, and would render our Habitations pernicious and inſupportable, if we had not an Opportunity of diſpoſing it in a proper Place.

Prior. There is ſomething more ſtill; for we not only can diſcharge it in our Lands, but are agreeably compelled, by their need of it, to free ourſelves from this offenſive

Maſs. Let us remove it then to a ſufficient Diſtance; let us even baniſh it from our Thoughts, and be only attentive to the lovely Verdure, into which it has been ſo happily converted, in order to be rendered the Source of Riches and Delight. Gardeners are as incapable of transforming Subſtance, and changing Straw into Gold, as Philoſophers themſelves. A Hand more potent than their own enriches them, by educing, from this vile Refuſe, the melting Melon, the vinous Peach with its ſplendid Hue, the juicy Fig, the perfumed Pear, and the foodful Corn; whoſe Taſte, though it be ſimple, is always attractive, and is counted preferable to the moſt delicately poignant and exalted Flavours.

Chevalier. This Transformation is daily accompliſhed in our View, tho' the Manner of it be imperceptible.

Prior. Hitherto we have only mentioned ſuch Manures as impart a tranſient Fertility; but there are others, which, in ſome Meaſure, change the Nature of the Soil itſelf, or render it prolific for twenty or thirty Years at leaſt.

The firſt Manure proper for effecting theſe laſting Changes is Marl, which is a Species of white Clay that is friable, notwithſtanding its Fatneſs. This is found in Beds of different Degrees in Depth; and when it has been ſpread over our Land, it diſſolves, and by its Incorporation with the Earth, contributes to its Fertility. It warms and animates the coldeſt as well as the ſtrongeſt Soils; but its real Function is to meliorate thin Land, which it impregnates with Salts, and prevents its immoderate Evaporation, by condenſing its Parts.

This precious Manure was known to the *Greeks*, and *Romans*, and likewiſe to our Anceſtors the *Gauls*[*]. We may, perhaps, have ſome Difficulty to procure a ſufficient Quantity of white Marl; ſince it is not very common; but ſeveral Naturaliſts are of Opinion, that Beds of Potters Clay, and other compact Subſtances, which are almoſt univerſally under our Feet at unequal Depths, would produce the ſame Effect. They even aſſure us, that they have made frequent Experiments of its Efficacy in ſeveral Places, and generally with equal Succeſs[†]. It is very cuſtomary, in

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[*] Plin. Hiſt. Nat. l. xvii. c. 7.

[†] Philoſophical Tranſactions, abridged, Vol. II. p. 731. *Mortimer's* Huſbandry, Vol. I.

England, to uſe white Clay, on thin Lands, ſome of which, when they have been intermixed with the firſt Clay that could be found in the Neighbourhood, were productive of fine Wheat, for the Space of forty-eight Years.

The ſame Benefits that are derivable from Marle, and perhaps from good white Clay, may be imparted by Sand and Gravel to thoſe Soils that are ſtrong and moiſt, and whoſe Parts are not eaſily ſeparated. Theſe prolific Qualities reſide more peculiarly in a Species of dry Earth, that is moſt commonly found near Mines of Iron.

Thoſe Perſons who are able to bear the Expence of a Lime-Kiln near their Farms, and can eaſily be furniſhed with ſuch Stones as are proper to be calcined, or diſſolved by Fire, may ſtrengthen the lighteſt Lands, and ſubdue the hardeſt into Pliancy.

Thoſe Shells which are ſometimes found in Beds, or large Heaps under the Earth, or about its Surface; the Shells likewiſe of Oyſters and Muſcles; Sea Sand, and Sedge, which is a kind of Herb that grows on the Shores ---

Chevalier. I know it very well, and have ſeen Paniers of Oyſters covered with it.

Prior. All Parcels of Matter whatever, that are capable of producing large Quantities of Salts, will communicate Fertility, when they are properly diſpoſed upon Lands.

It will frequently be ſufficient to form an Intermixture of natural Earth, and to dig a Pit to the Depth of a few Feet, and in the Corner of a Field, for the working up of this Compoſition. We daily meet with Inſtances of Oeconomy in Huſbandry, by which marſhy Soils that were entirely uſeleſs, and even unſalutary and pernicious, are converted into excellent Soils, by being ſupplied with Gravel, at a Time when the Horſes are unemployed in any other Work.

The Invention of Fertilizing Lands, by an Intermixture of the Surface, not only with white Clay, but likewiſe with the firſt common Earth that occurs in digging, is far from being any Novelty; ſince it was practiſed in *Pliny's* Time, by the Inhabitants of the Countries adjacent to *Cologne* and *Bonne*.

You may judge, my dear *Chevalier*, by all the Species of Manures, which are every where to be found either on the Surface, or in the Bowels of the Earth; what a Number of Expedients are offered, by Providence, to Man, for the Supply of his Neceſſities, and to correct the Infertility of his Land. His Domain is not limited to the Surface of a Soil, but he is made conſcious, that the Deity has been pleaſed to conſtitute him the Maſter and Monarch of the Earth, by leaving to his Induſtry the honourable Care of its Improvement and Melioration.

Let theſe Preparatives to Huſbandry be our Subject for this Day. We will take another Opportunity to depoſite the Corn in the Earth, and ſhall then endeavour to purſue it through all its Progreſs, till we have at laſt converted it into Bread.

Chevalier. If we are Maſters of ſo many Expedients for the Improvement of Land, all Complaints of the bad Qualities of the Soil we poſſeſs are very unjuſt, ſince they may be rectified by a little Labour.

Prior. I can inform you of a very ſingular Event, of which I myſelf was a Spectator for ſome Years.

The whole Patrimony of a certain Peaſant conſiſted of two little Spots of Ground, which would hardly produce a ſmall Crop of Oats, or *Turky* Wheat. The poor Man was deſirous of raiſing a Growth of Corn, but as he was not provided either with Cattle or Manure, he opened a Pit, in a Corner of one of his Pieces of Land, and dug out a black Sand, which he ſcattered over the Surface of his Ground. He afterwards manured the other Piece, which lay adjacent to the high Road, with the very Earth that he had heaped up along the Extent of that Road. He then repeated this Mixture from Year to Year, and at laſt acquired the fineſt Crop of Corn in all thoſe Parts. He enjoyed the Benefits of this induſtrious Improvement, for the Space of forty Years, though not without the Envy of his Neighbours, who were ſo ridiculous as to charge him with magical Practices.

Chevalier. This little Piece of Hiſtory very much reſembles that of *Furius Creſinus*, which the Count lately gave me an Opportunity of reading in *Pliny* the Naturaliſt *.

Prior. I may poſſibly have read it too, though I don't recollect it at preſent.

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* Lib. xviii.

Chevalier. This *Creſinus* had received his Freedom, and he afterwards purchaſed a Piece of Ground, from which he acquired, by indefatigable Labour, much finer Harveſts than any of his Neighbours, who had the largeſt Tracts of Land. Theſe all beheld him with jealous Eyes, and accuſed him with having Recourſe to Incantations, in order to improve his own Land by impoveriſhing theirs. The *Ædile* ſummoned him to appear before the People of *Rome*, and he accordingly paid his Attendance, with his Daughter, who was a hale Country Girl, in a decent Habit. He likewiſe produced, before his Judges, all the Equipage of his Huſbandry; the Implements were in good Condition, the Mattocks were very weighty; the Size of the Plough was very enormous; and his Oxen were all fat. *Theſe*, ſaid he, O Romans, *are the magical Inſtruments I employ; there are indeed ſome others, which I am incapable of producing; I mean the Sweats of my Brow, and my Labours by Day and Night.* This natural Eloquence gained all the Votes in his Favour, and he was acquitted by the unanimous Voice of the Aſſembly.

CORN, AND OTHER GRAIN.

DIALOGUE XII.

The PRIOR. *The* CHEVALIER.

Chevalier. THE Land is already prepared, and requires nothing now but the Seed.

The Choice of the Seed.

Prior. The Seed ſhould be well choſen and ſteep'd in a lixivious Liquor, previous to its Plantation. The right Choice of it conſiſts in ſelecting ſuch as have a promiſing Aſpect, and have been carefully winnow'd, and purified from Tares, and other improper Grain. It will be prudent, at particular Times at leaſt, to procure the Seed from a Soil, ſome Leagues diſtant from that, in which we intend to ſow it; for Corn will be apt to degenerate, by being always planted in the ſame Earth, where it exhauſts the Juices that are agreeable to it; whereas it finds a new Supply in Land where it has never been ſet.

Chevalier. The moſt perfect Corn is undoubtedly choſen.

Prior. The Seed, though it be finely plump, and free from all Impurities, ſhould, however, be the Produce of a

Soil, inferior in ſome Degrees of Heat and Fertility to your own. The Tranſition from an indifferent State to a better is eaſy; but when an excellent Nouriſhment is changed for one that is leſs perfect, the Nature of the Seed is injured by that Proceeding, and its thriving State will be in Danger of declining.

Chevalier. What are the Ingredients, Sir, of that Lixivium, through which, you ſay, the Seed muſt paſs, before its Plantation?

Their Preparation.

Prior. Seeds are properly prepared, by paſſing them through a Lixivium of quick Lime, or by ſteeping them five or ſix Hours in a Brine made for that Purpoſe. It is uſual to pour into a large Baſket a hundred and twenty Pounds Weight of Corn, which is a Quantity ſufficient for ſowing an Acre of Land. The Baſket and Seed may be then plunged for ſome Hours in a Veſſel, which, on that Occaſion, muſt contain twenty Pounds of Lime, and about nine or ten Pails of Water. The Corn ſhould afterwards be dried in the Sun, or it may be ſhook about in a Veſſel, wherein three Pounds of Salt-petre, or half that Quantity of Alum, or only two Ounces of Verdigreaſe, have been diſſolved in Water. Some Perſons uſe Vitriol, and others common Salt.

The Brine is ſometimes compoſed of Salts extracted from the Aſhes of all Sorts of Plants; but ſome People think it a better Method to drench the Seed in the Lees of Wine, or the Dregs of Olives. There are Huſbandmen, who only mix their Corn with bruiſed Lime, and ſow both the one and the other; leaving to the Air and Rain the Care of diſperſing the Salts and Spirits of this Intermixture under the Furrows.

Chevalier. Theſe Methods are not new, but were approved even in *Virgil's* Time *; for that great Poet declares,

I've ſeen the Seed oft temper'd for the Soil,
With poignant Nitre, or the Lees of Oil.

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* Semina vidi equidem multos medicare ſerentes,
Et nitro prius, aut nigra perfundere amurca. *Georg.* 1.

Prior. Their Efficacy has always been confirmed by Experience. This Brine fortifies the Corn againſt ſeveral Diſtempers, to which it is obnoxious. The Bracky Flavour it diffuſes, diſguſts and chaſes away the Worms, and Moles, and Field-Mice, that would otherwiſe devour the Corn in the Earth. Experience has likewiſe made it evident, that all lixiviated Seeds are improved in their Fertility, and render'd more ſucceſsful. There are ſome Huſbandmen, who are ſo fully perſuaded of the good Effects of their preparatory Compoſition, that inſtead of a hundred and twenty Pounds of Corn, they only employ two thirds, or even but half that Quantity; and mix, for each Acre, ſixty or ſeventy Pounds of Corn, with chopped Straw, that the Hand of the Sower may be filled as uſual.

A ſingle Grain, in conſequence of ſuch a Preparation, has been frequently known to ſhoot up ſeven or eight Stems, each of which has ſupported an Ear, which contained more than fifty Grains. The Number of Stems produced by one Seed is ſometimes prodigious, and they have amounted to more than thirty *.

Chevalier. I have heard you ſay, Sir, that there is but one Bud in each Seed.

Prior. The Number of Stems produced from one Grain of Corn, is a Fact too well atteſted, to admit of any Doubt. This Fact therefore, and a Variety of others, make it evident, that I entertained a wrong Opinion; and that inſtead of only one Bud in each Grain, there is really a Pacquet of them; the moſt exterior of which ſhoots out firſt, and deſtroys all the reſt, by engroſſing the Nouriſhment from them, unleſs the adjacent Earth be impregnated with a ſufficient Supply of vegetable Principles for their Support. This Profuſion of Buds, which are unfolded in Proportion to the Quantity of Salts, and other nutrimental Aids acquired by them in the Earth, may be conſidered as an Invitation to us to be inquiſitive after the beſt Expedients for their Improvement.

Chevalier. We have an ample Supply of all the different Species of Salts, and 'tis poſſible that we may hereafter be able to furniſh the Earth at a ſmall Expence, with that particular Species and juſt Proportion of Salt as will be ſufficient to promote its Fertility for many Years, and without the leaſt Intermiſſion.

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* Malpighi Anatom. Plant.

Prior. Its Produce would then be increaſed to a third, or perhaps one half more than it now affords.

Chevalier. We muſt, however, purſue the old Methods, till theſe new Diſcoveries are obtained; and I ſhall now be glad to know the proper Time for Sowing.

Corn.

Prior. The Species of Corn that are ſown before the Winter Seaſon, are the autumnal Wheat, Barley, and Rye. I ſuppoſe, Sir, you are not unacquainted with the Nature of Wheat in general; but there are ſome Species of it that are not very common; as the red and white Pollard Wheat; the former of which is ſown in Spring, and the latter is ſown in *Dauphiné* and *Flanders*; Touzelle, which is common in *Languedoc*; and Spelt, which the *Germans* uſe more than ourſelves.

Rye.

Rye is the Food of the poor People, and thrives in the worſt Soils, and the drieſt Years. Its refreſhing Qualities are frequently an Inducement to ſeveral Perſons to intermix a ſmall Quantity of it with Wheat, which it renders more tender and agreeable, and adds to it a pleaſing Freſhneſs. The dry and degenerate Kind of Rye, which is called Horned or Spur-Corn, is only fit to be thrown away; and it occaſions fatal Diſtempers in thoſe Countries where it is uſed by the Inhabitants.

Starch Corn.

Starch-Corn, or Autumnal Barley, is ſown before the Winter Seaſon. The Spike of this Grain has four Sides, whereas the common Barley has only two. It is cut in the Month of *June*, and proves very ſerviceable to poor People, till the Harveſt ſupplies them with their Winter Proviſion. It may be cut while it continues green, and it ſhoots up two or three times. Horſes are equally fond of the Straw and the Grain.

The ſmall Grains, which are ſown in *March*, are Oats, and Barley; Lentils, and little round Beans.

Oats.

The Oat Harveſt is an important Article in Commerce, becauſe this Grain is the principal Food of Horſes. It is likewiſe made into a ſalutary Gruel, when it has been cleared from its Huſks.

Chevalier. What can be the Uſe of that large wooden-Roller, which is drawn by a Horſe over a Field of Oats that are newly ſhot up?

Prior. It compreſſes too lax a Soil cloſe to the Roots, and, by rendring the Surface a little compact, prevents all immoderate Evaporation, during the firſt Heats.

Barley.

Barley, though it be not altogether ſo uſeful as Rye, is the Nouriſhment of a Multitude of Animals. The *Spaniards* feed their Horſes with it, inſtead of Oats; and it makes fine Bread, tho' the Taſte of it is not very agreeable to thoſe who have not been habituated to it. This Grain is likewiſe the principal Ingredient of Beer, and it furniſhes us with Ptiſanes, Gruels, and refreſhing Creams.

Chevalier. That agreeable Water, which we call *Orgeat*, is undoubtedly made with this Grain.

Prior. A Paſte, compoſed of Barley-Meal, may be one of its Ingredients, if you pleaſe; but it is generally made with Melon Seeds, mix'd with Sugar, and ſome ſcented Water.

Lentils, little round Beans, Lupines or wild Peaſe, and ſeveral other Species of ſmall Grain, are either ſown apart, or intermixed at Pleaſure. Their Straw affords a good Food for Beaſts of Burden, Cows, and Sheep; and the Grain itſelf is given to Horſes, Swine, and Fowls. Lentils, which are ſo much diſregarded in the Country, are in great Eſteem at *Paris*, and contribute, at leaſt, to the Regularity of the Courſes brought to our Tables.

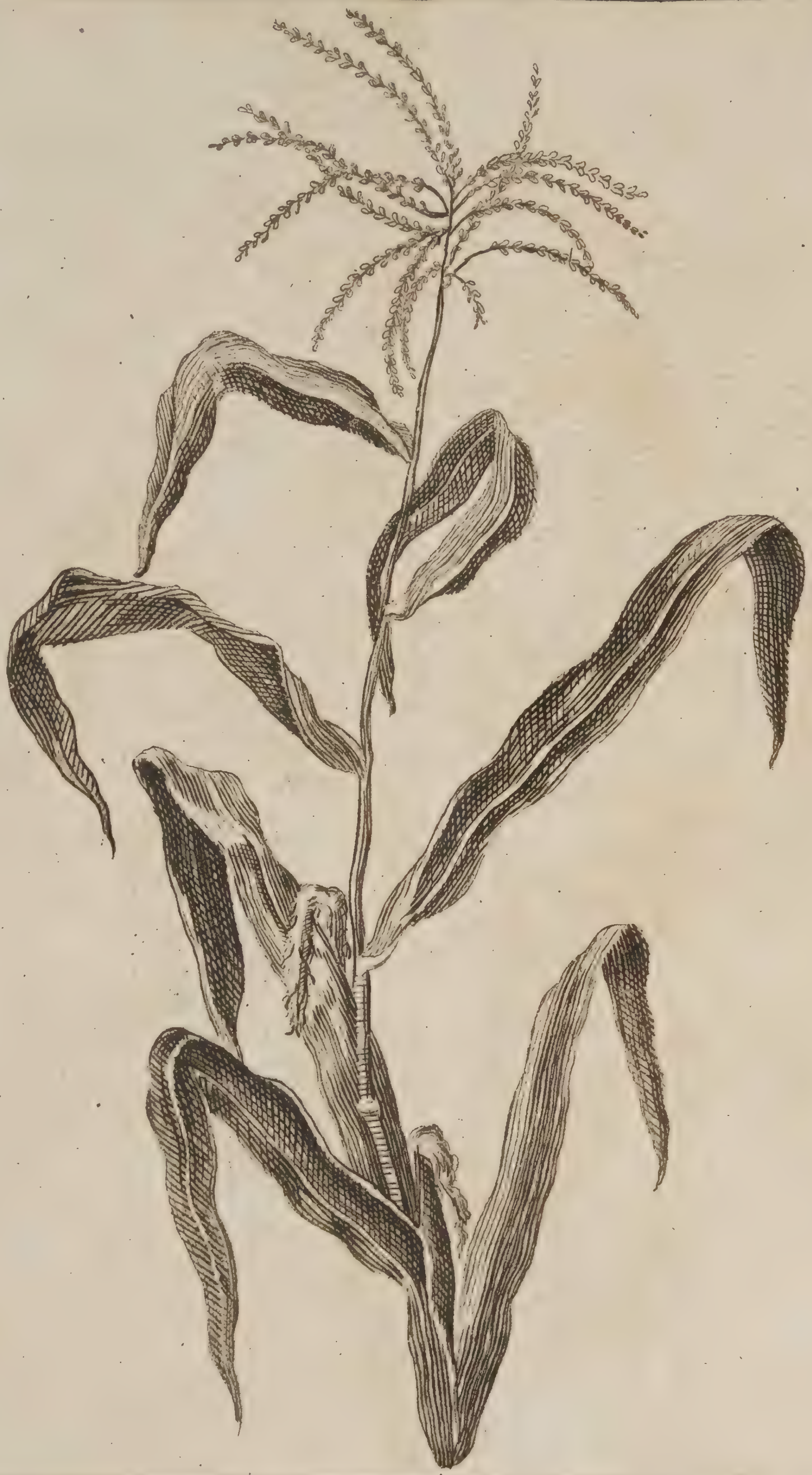
Black or *Saracen* Corn, which, according to the common Tradition, was imported on our Coaſt by the *Saracens* when they came to inſult us, towards the Expiration of the firſt Race of our Kings, is a ſmall ſable Grain of a triangular Form. It proves an agreeable Food to Fowls, and particularly to Pheaſants, and its Flowers afford the Bees a delicious Regale.

Millet.

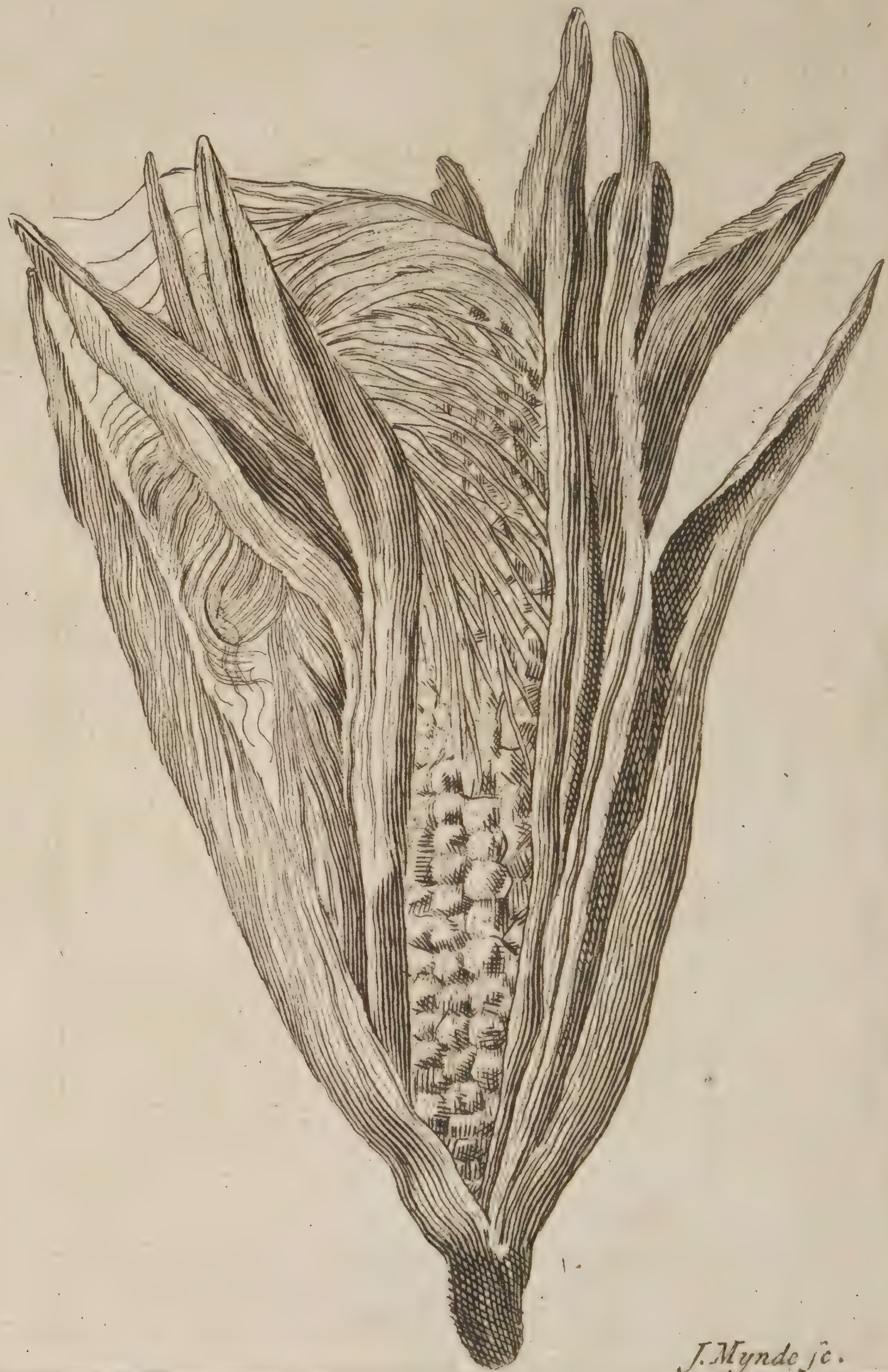
Millet is the ſmalleſt Species of Corn, and among other Uſes to which it is appropriated, it ſupplies *Canary* Birds and *Ortolans* with their moſt delightful Nouriſhment.

Panic.

Panic, or bearded Corn, which ought not to be confounded with the bearded Corn, which is made into excellent Bread, is a Species of large Millet, whoſe Stem riſes to the Height of eight or nine Feet.



The ſtem of ye Mays containing ye tenth part of its natural ſize.



J. Mynde ſc.

Mays or Turkey Corn half ye ſize of its natural bulk.

Rice, which is but little cultivated in *France*, delights in Shade, and in Lands Rice. that are rather moiſt than fat. It might, in ſome meaſure, be advantageous to ſow this Grain in our marſhy Lands, which are ſo uſeleſs at preſent. Rice is a very nouriſhing Diet, and much uſed in Soops. It is the uſual Food of the *Eaſtern* People, and the *Chineſe* brew it into a Drink, which ſerves them inſtead of Wine.

Mayz, or *Turkey* Corn, is a large Grain almoſt round, ſomething angular, and about Mayz. the Size of a common Pea. One Species of it is yellow, another red, and a third ſort is colour'd like Marble. The Complexion of its Skin is extremely varied, it affords a very white, and ſometimes a yellowiſh Meal, and its Taſte is rendered agreeable by Uſe. It proves a good Ingredient in Ragoûts, and may be made into Bread and Cakes. 'Tis cuſtomary likewiſe to boil it; and this is the manner, in which the People of *Aſia* and *America* prepare it for their Tables. This Corn acquires a very large Growth, and may be employed inſtead of the generality of leſſer Grains, uſually given to Animals. It ſhoots out four, five, and ſometimes ſix Stems, like Reeds; theſe riſe about ſeven Feet high, and contain a rich Pith or Syrup, from which a real Sugar may be extracted. Each Stem ſupports two or more Spikes, four or five Fingers in height, and which are enfolded in ſeveral large Skins, almoſt as ſtrong as Parchment; by means of which, the Grains are preſerved from all Humidity, and the Depredations of Birds. Every Spike is compoſed of eight Sides, or Ranges, each of which contains thirty Grains; the whole eight yield two hundred and forty; the Product therefore of one Stem generally exceeds ſeven hundred; and if we reckon no more than three Stems, the Grains they produce will amount to above two thouſand; and all theſe ſpring from the ſingle Grain that was planted in the Earth.

This prodigious Fecundity, in Conjunction with the beneficial Qualities of the Grain, has already induced the Huſbandmen to plant it in ſeveral of our *Southern* Provinces; and they have derived great Advantages from their Labours, eſpecially with reſpect to their Poultry. The Harveſt of this Corn is not only much more abundant, but likewiſe more certain than any other; and its Goodneſs is more unimpaired by the Generality of thoſe Diſtempers that prove deſtructive to other Grain. You ſee, Sir, there are ſome Countries, where Experiments are made without any Detriment; but this happens not to be our Method. We begin with condemning every Practice that is not eſtabliſhed among us, and are generally ſo modeſt, as to imagine our Conduct to be the Model of what is proper to be done.

Theſe, my dear *Chevalier*, are the different Species of nutrimental Grain; but there are other Seeds which are planted to great Advantage in ſeveral of our Lands.

Oily Seeds.

Theſe are, firſt, the oily Seeds, which are ſown towards Spring. The chief of theſe are Cole-Seed, which produces a Species of Cabbage; Rape-Seed, which muſt not be confounded with the Seed of Turnips; Seſamum and Poppey-Seed. Thoſe are all productive of Oil for Lamps, and likewiſe for the dreſſing of Wool. The Oil extracted from Camomile, and ſeveral other Plants, is uſed in medicinal Preparations; and the Poppey Oil is eaten in ſeveral Provinces.

Chevalier. Is there not Reaſon to be apprehenſive of its proving as ſoporiferous as Opium, which is likewiſe extracted from Poppies?

Prior. I don't believe it comparable to the Oil of *Provence*, but it is daily eaten, without any prejudicial Effect. The Opium, which flows from an Inciſion made in the Head of a Poppey almoſt ripe, is entirely different from the Oil, which is drawn from the Seed.

After this Account of the oily Seeds, it will be proper to take Notice of the various Claſſes of Plants that are ſown in open Lands; as Saffron, Senvie, Hops, Hemp, Woad, Tobacco, and ſeveral others.

Saffron.

Saffron, which is the beſt Revenue of ſome Provinces, and particularly of Part of *Gatinois*, where it grows in Perfection, is a Plant that riſes from a bulbous Root. At the End of two Years, it will bloſſom in the Months of *September* and *October*. The Flowers are beautiful, and bear a Pointal, which riſes from their Bottom, and is divided into three Branches, which are called Darts. Theſe are the only Parts of the Flower that are uſed, as being what is properly called the Saffron. It is employed by Dyers, and our Cooks ſometimes uſe it, to colour their Ragoûts with a light Red. In a word, it is exceedingly eſteemed by the *Northern* People.

Senvie.

Senvie is a very ſmall Grain, yielding a yellow Farina, which, with an Intermixture of Vinegar or new Wine, to correct its Poignancy, is what we call Muſtard.

Hops.

Hops, which are propagated from Seed, Sets, and Roots, produce a Flower that gives Strength to Beer, and chiefly contributes to its Agreeableneſs. They accompliſh their Growth, by twining round long Poles, in cultivated Lands, which are diſtinguiſhed by the Name of Hop-Grounds. The Uſe which is made of Hops in the Liquor drank in cold Countries, and the Manner of raiſing them on Props, has given the Plant the Appellation of the *Northern* Vine.

I ſhall not acquaint you with any Particulars relating to Hemp and Flax, ſince they have been the Subject of a former Converſation *.

Woad.

Woad, Madder, and Weld, are ſown in ſeveral of our Provinces, for the Uſe of Dyers. Woad, which is likewiſe called Wade, is properly a Paſte, made with powdered Leaves of a Plant that is ſown in ſtrong Soils, and a hot Climate, like *Languedoc*, where it is much cultivated. The Leaves of this Plant are firſt bruiſed, and then ſteeped in Water for ſeveral ſucceſſive Months. The Sediment, which ſinks to the Bottom, is worked into a Paſte, and then ſent to the Dyers.

The little Woad of *Normandy* only differs from the other, as it is a leſſer Plant, and is likewiſe prepared with ſome Variation from the other Method. This Paſte, which affords a blue Dye, is the Baſis of moſt other Tinctures. Indigo, which produces a more perfect Blue, is not a Paſte of pulverized Leaves; but the Juice or Sediment of a Plant, which has been immerſed for ſome Time in Water. The Plant itſelf is cultivated both in the *Eaſt* and *Weſt Indies*.

Weld.

The Roots of Weld furniſh a red Dye. The Plant flouriſhes in light and moiſt Soils, and in Marſhes that have been drained. We may form a Judgment of its Nature, by its ſucceſsful Growt in the Iſland of *Zeeland*, from whence we are furniſhe with the fineſt Species.

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* Vol. I. Dialogue XV.

Madder.

Madder is another Plant, which is eaſily cultivated in light Soils; it affords a yellow Tincture, and is likewiſe an Ingredient in green and other Dyes.

Fuller's Thiſtle.

The laſt Claſs of Seeds ſown in arable Lands is that of Teſil, or Fuller's Thiſtle. The ſhaggy Heads of this Plant are uſeful in raiſing the Nap on Woolen Cloth, and rendering it impenetrable to the Air, by Means of the delicate Down, with which they cover all the Surface of that Manufacture. This Plant proſpers beſt in a light Soil.

Chevalier. I have ſeen Tobacco, which is ſo much uſed, thrive to Perfection in very bad Land; and it ought to be conſigned to thoſe Provinces where the Soil is unfertile, and which the Cultivation of this Plant would certainly enrich.

Prior. There are Varieties of other uſeful Seeds, whoſe Nature correſponds with the Quality of ſuch Land as you have mentioned, as you may judge by the Detail I have given you of the ſeveral Species. All Sorts of Soil are capable of Melioration, and the Facility in chuſing proper Seed for that Effect has occaſioned thoſe prudent Regulations, which have limited the Culture of Tobacco to our Foreign Settlements; ſince it is often the only Plant, which can be raiſed there with any conſiderable Advantage.

Chevalier. Will you be ſo good, Sir, as to inform me when the Uſe of Tobacco was originally introduced among us? I have been told that it has not been very long in vogue.

An hiſtorical Account of Tobacco.

Prior. In the Year 1560, Monſieur *Nicot*, who reſided in *Portugal*, in the Quality of Ambaſſador from the Court of *France*, ſowed Part of his Garden with the Seeds of this Plant, which he had received of ſome curious Perſons, who brought them from a Part of *Mexico* called *Tobacco*; and where the Natives diſtinguiſh the Plant by the Name of *Petun*. The extraordinary Succeſs which attended the Application of its Leaves to ſome paticular Ulcers, gave it the Reputation of an excellent Vulnerary. Monſieur *Nicot* ſent this Plant to Queen *Catherine* of *Medicis*, and from theſe Circumſtances it acquired the ſeveral ſucceſſive Names of *Queen's Herb*, *Nicotiana*, *Petun*, and *Tobacco*; the laſt of which Names it has imparted to one of the little *Antilles*, where it ſucceeds better than in any other Country. Its different Uſes are now univerſally known; it reſembles our Henbane of *Canada* in its principal Operation, which conſiſts in ſtimulating the Nerves, and affecting them with a kind of convulſive Motion.

Chevalier. Can this Motion, which ſeems to be an Irregularity forced upon Nature, be productive of any good Effect?

Prior. It undoubtedly is qualified to free us from any redundant Humour; and it then becomes a ſalutary Remedy. But is there any Reaſon to ſuppoſe that Health can only be ſecured by a conſtant Recourſe to this Remedy; or can we imagine we derive any real Relief, from being every Moment affected with Convulſions?

The Manner of Sowing.

Let us, however, reſume our Subject. Of all the different Seeds we have mentioned, ſome are planted ſingle, others in Pairs, and in Holes equally diſtant from one another. A third ſort is ſown, either with a ſingle or double Caſt; and this latter Method is uſed with Corn. When the Huſbandman has broken his Land into ſmall Parts, either for Wheat or Rye, which are ſown in the Months of *September* and *October*; or for the *March* Grains, which are ſet in that Month, and likewiſe in *April*; inſtead of being ſo ſuperſtitious as to wait for any certain Period of the Moon, which would cauſe him to loſe the fine Days that are preſented to him, he faſtens his long Bag before him, into which he pours a Meaſure of the Grain, and winds the Extremity of the Bag round his left Arm, that he may have it at his full Command. He then fills his other Hand, advances in a direct Line, and ſcatters the Seed with a circular Caſt, by carrying his Hand to his left Shoulder. He afterwards fills his Hand a ſecond Time, and directs its Motion by that of his right Foot. In this manner does he proceed, and with a Movement, whoſe Juſtneſs and Regularity are very pleaſing to the Eye of a Spectator.

Chevalier. Is Pleaſure then conſulted in this particular Motion.

Prior. By no means, Sir; and the Exactneſs with which he performs it, is only calculated for the equal Diſtribution of the Seed. When he has filled one Space of Ground, he turns off into a new Line, whoſe Diſtance from the other is adjuſted by the Extent of the Caſt. The Corn begins to vegetate, when it has been four and twenty Hours in the Earth.

When the Article of ſowing is completed, the Huſbandman begins to enjoy ſome Reſpit from his Labour; and one of his greateſt Satisfactions at that Time is to walk over his Ground, and ſee a Field, that was dry and naked a few Days ago, entirely covered with a beautiful Verdure. His Heart then exults with Joy, at theſe favourable Omens of a fertil Harveſt.

Chevalier. Let us attend him in his Walk, and ſhare his Contemplation on the Progreſs made by the Grain, from the Moment it is firſt unfolded, till the Seaſon when its Fruit appears.

Prior. This amiable Operation of Nature begins to be withdrawn from our View, and the Seaſon when by opening the Earth I could have ſhewn you the Seed newly ſhot forth, is unhappily elapſed. I, however, have found out an Expedient for procuring you a Sight of this Proceſs, without any Difficulty. I have cauſed ſeveral Grains of Corn, and Seeds of all Kinds, to ſhoot forth in the open Air, without any Aſſiſtance from the Earth; and will now acquaint you with the Method for obtaining this Effect. You are to lay the Seed on a light Spread of Wool, which muſt be ſupported by a leaden Plate pierced through with ſeveral Holes, which ought to be ſomething large. When this Plate is placed over a great Veſſel, always filled with clear Water, and which ought frequently to be renewed, it will draw up a Moiſture into the Wool, which performs the Functions of Earth to the Seeds. Theſe will begin to ſhoot in a few Days, and their Roots will be gradually extended to the Water; and though they will then acquire fewer Juices than they would imbibe from the Earth, they will, however be ſucceſsful in their Vegetation; eſpecially if the Water be changed, and likewiſe intermixed with a ſmall Quantity of Salt I have compared the Circumſtances, which attend the Seeds in the Wool, with thoſe that occur to them in the Earth, and find the Proceſs to be much the ſame.

When a Seed has been in the Ground about two Days, the Juices which ſwell it, are communicated to the Bud, and cauſe it to ſhoot. This Bud is always lodged in one of the extreme Parts of the Seed; and that Portion of it, which lies near the Surface, is the little Root of the future Plant. That Part of the Bud, which is next to the inward Subſtance of the Seed, is the Stem and Head of the Plant. The generality of Seeds are compoſed of two Pieces, called Lobes, and which are, at firſt, united by a common Foldage, whoſe Texture is more or leſs ſubſtantial. When the Seed is ſwelled by the Juices of the Earth, the Lobes burſt their Covering, in conſequence of which, they are ſeparated from each other; and they then furniſh the young Plant with the fine milky Nouriſhment, with which they are impregnated. They are likewiſe ſtrengthened by the Proceſs of Vegetation; they ſhoot out of the Earth, in order to perform the Office of ſeminal Leaves to the Plant, and wither away, when it has exhauſted them of their nutrimental Fluid, and no longer needs their Aſſiſtance. You will obſerve every Particular of this Progreſs, in ſeveral Species of Beans, as alſo in Peaſe, and the Seeds of Citruls and Melons; and I think the Inſtances I have now offered are ſufficient.

There are other Seeds, whoſe Foldage is not ſeparated into two Parts, in order to furniſh the two firſt Leaves; and tho' it ſupplies the tender Plant with its original Nouriſhment, it continues in the Earth, where it ſhrinks into Wrinkles, and withers in proportion to the Strength the Plant acquires, by extracting more ſubſtantial Juices from the Soil. You will experience this Proceſs in Wheat and Millet, which I have carefully traced in their different Acceſſions of Growth.

The Corn-Bud.

When a Grain of Corn has been depoſited in the Earth for the ſpace of twenty-four Hours, the Bud uſually begins to diſengage itſelf from the Subſtance of the Grain, and ſhoots out its Root and Stem. The Root is at firſt wrapt up in a kind of Purſe, through which it forces its way. Two other Roots ſpring forth, in a lateral Direction, within a few Days, and burſt through the Texture that covered them. Each of the three Roots is ſhagged with a number of Fibres, which cloſely twine about the ſaline Particles of Earth that are preſented to them in their Progreſs, and extract from them whatever is capable of nouriſhing the young Plant, in conjunction with the Fluids it ſtill derives from the inward Subſtance of the Seed, to whoſe Bottom the Plant extends ſeveral ſmall Filaments.

The Stem.

The Stem ſhoots upwards, in as direct a Line as it poſſibly can form, while the terreſtrial Juices habituate the Root to deſcend, by inſinuating themſelves into its Pores. The ſame Juices are likewiſe inſtrumental in raiſing the Stem, while the Air, by flowing into its Pores, promotes the Continuance of that Direction. The Body of the Plant aſcends inſenſibly through a little Tegument that preſerves it. Theſe ſorts of Teguments are very common in Plants; they likewiſe encompaſs the generality of Flowers; and we may obſerve them folded round the Buds of Leaves, in Trees. They are ſometimes lengthened, like a ſecond Growth of ſeminal Leaves, as is very evident in the expanding Gems of the Cheſnut-Tree; but they ſoon wither, when no Danger attends the Plant that was conſigned to their Care.

The Leaves.

The Corn will begin to ſhoot a little verdant Point out of the Earth, about the ſixth Day after its Plantation. This feeble Stem is only a Packet of Leaves folded over one another around the Spike, which ſtill continues inviſible, and is lodged in the Heart. The firſt Leaf of this Pacquet opens a little towards the Point, but its lower Part is always rowled up in the hard Covering, from whence it ſprings. Some Days after this Proceſs, the Foliage of the Seed, though it has ſtill ſome Remains of a milky Fluid, begins to ſhrink, and falls into Wrinkles.

The Purſe, which incloſes the Roots, begins to wither away, and all theſe tranſient Pieces ſoon die and diſappear, when they have accompliſhed the Functions for which they were appointed.

If we clear away the Tegument of the Seed, and retrench the Foliage from whence the Roots have ſhot, as well as that, which emitted the Pacquet of long Leaves; we ſhall have nothing left but the Pacquet itſelf which contains the green Leaves, and the real Stem. Theſe Leaves, when they are unfolded in a proper Manner, will diſcover the firſt Rudiments of four Tubes, which compoſe the Stem, and at whoſe Extremity the Bud of the Spike will appear. From the firſt Knot, which is neareſt to the Roots, a Leaf ſprings forth, and performs the Office of a Covering to a ſecond Tube. Another Leaf likewiſe riſes from the ſecond Knot, and wraps itſelf round the third Tube. The third Knot produces another Leaf, which incloſes a fourth Tube, together with the Spike. The Space between the firſt and ſecond Knot, neareſt the Roots, is then much larger than the Interval that ſeparates the ſecond Knot from the third. On the uppermoſt of theſe Tubes, which are joined into one another, riſes the Spike, which is eaſily diſtinguiſhed by the Roundneſs and Tranſparency of its little Grains, that reſemble ſo many Pearls.

When the green Leaves of the Corn have acquired ſo much Thickneſs, at the Return of Spring, as to make it probable, that the Stem will be impaired and cruſhed down under the Weight of the Spike; the Huſbandman introduces a Flock of Sheep * into his Field, to nibble off the Points of the Foliage, which ought to be conſumed in a ſhort Time; and this Expedient fortifies the Stem, which is incloſed by thoſe Leaves.

The Growth of Corn now begins to be ſecured. The Spike riſes from the Covering that ſheltered it from the Inclemency of a cold and inconſtant Air: The different Lodgments, that are to contain the future Grains, begin to be enlarged; and they ſhoot out two Kinds of Piſtils, to receive the Powder from the Knot of Chives that appear in a higher Situation, and impart Fertility to the Buds. When none of this Powder happens to be diſcharged, the Buds are unproductive, and the Covering, with its Contents, remains flat and uſeleſs.

When the Buds have lengthened and dilated that mealy Subſtance, to which they are united by Branches that may be called the ſeminal Roots, the Foliage, and likewiſe the firſt Leaves, which extracted from the Earth and Air ſuch Juices and Spirits as were proportioned to the delicate Texture of the Stem, begin to wither away; and as the Stem

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* —— Ne gravidis procumbat culmus ariſtis,
Luxuriem ſegetem tenera depaſcit in herba, *Georg.* I.

is then ſtrengthened, it operates with more Vigour by itſelf. It diveſts the Leaves of their nutrimental Juices, which it engroſſes to itſelf, though in reality they are only to enrich the Spike, which it bears.

Chevalier. When you have fortified the Stem, Sir, as much as you pleaſe, it will only have a Breadth of two-twelfths of an Inch, to ſtrengthen a Height of four or five Feet, and ſometimes more. How is it poſſible then for ſo weak a Trunk to ſupport the Spike, with all its Grain? My Life depends on the Preſervation of this Plant, and when I conſider, that the leaſt Wind lays it low, it creates me ſome Inquietude.

Prior. I confeſs you have Reaſon to be ſurpriſed, that ſo precious a Spike ſhould be ſuſtained by ſuch a ſlender and lofty Stem, which is deſtitute of Shelter and Support, and is planted in the midſt of a vaſt Field, where all the Winds have alternately their full Play. Let us therefore enquire what Reaſons can be aſſigned for ſo extraordinary a Structure.

Corn aſcends more than moſt Species of Grain, and even to the Height of four or five Feet; that it may riſe above a putrifying Humidity, which exhales from the Earth, and whoſe Effects are very perceptible after the Cloſe of Day, when the nocturnal Cold condenſes this moiſt Vapour, and prevents its Diſſipation. Were the Grain lodged at a leſs Diſtance from the Earth, the watry Stream would cauſe it to bud forth with too much Precipitation.

This lofty Stem has only two-twelfths of an Inch for its Diameter but this Proportion is adjuſted by the niceſt Œconomy, ſince a ſmall Field is hereby qualified to contain a great Number of Spikes. But as lank as this Stem appears, it has been formed by an Art that preſerves it, for the Space of five Months, uninjured by the Fluctuations of Air. Four knots, of a ſolid Subſtance, and which reſemble ſtrong Bands, faſten it ſufficiently, without depriving it of its due Flexibility; and it continues capable of bending, without breaking, under the common Gales of Wind, or even beneath the formidable Force of impetuous and ſudden Blaſts; ſince its Knots enable it to recover its former Poſition, in the returning Calm. It is a pleaſing Sight to behold the eaſy Undulation of this Foreſt of Spikes, which gently ſink with each ſucceſſive Flow of Air, and ſeem to roll like the Waves of an immenſe Ocean.

The ſame wiſe Precaution has been employed in the Formation of the Spike, in which the Grains are ranged one above another, at equal Diſtances, that the Nouriſhment may be equally diſtributed amongſt them. They are likewiſe concealed and ſecured under different Coverings, which are ſubſtantial enough to weaken the Force of the Sun-beams, and are ſo compactly joined together, as to exclude and throw off the Dews and Rain, which would otherwiſe cauſe them to ſhoot forth. Several of theſe Coverings terminate in as many Points of different Degrees in length, and which, in the Opinion of ſome Perſons, are little Canals appointed for the Introduction of a proper Quantity of Air into each Cell; others think, they form a Paliſade againſt the Ravages of Birds*. I am very inclinable to believe, that theſe Points, or Beards of Corn, are intended to break the Force of Rain-Drops; in conſequence of which, they are dicharged from each ſide, inſtead of ſinking in, towards the bottom of the Cells of the ſeveral Grains, which would be rotted by a Continuance of Moiſture amongſt them.

Mildews.

Nothing is more noxious to the Spike than violent Winds and Mildews, which latter are a ſmall viſcous Rain, whoſe Parts, that are moſt impregnated with Sulphur, adhere in different Quantities, to ſome particular Stems, where they are glewed while the Water flows down. The Sun, which afterwards heats this gummy and combuſtible Fluid, renders it ſo active and penetrating, that it burns the Stem, and converts the Grains into a kind of Cinder, or black Powder, whoſe Intermixture with the good Corn, is deſtructive to its Growth.

Chevalier. Is there no Remedy againſt this Diſaſter?

Prior. As to Tempeſts, which are appointed for our Puniſhment and Probation; neither Force, Induſtry, nor any other Precaution will avail againſt them; but the pernicious Effects of Mildews may be prevented by a long Cord, drawn by two Perſons ſucceſſively over all the Spikes in a Field; and by ſtrongly ſhaking off the ſmall Rain, before it has been inflamed by the Sun.

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* Contra avium minorum morſum muniuntur vallo ariſtarum. Cic. de Seneƈt.

The Harveſt.

The Corn at laſt aſſumes its Golden Hue; but we are not to have recourſe to the Sickle. till the yellow Complexion of the Harveſt begins to deepen into a red, and the Grain, by unfolding its Covering, invites us to gather it in, and prevent its ſpontaneous Fall. 'Tis then that a number of officious Hands tender us their Services, and are willingly blackened in the glowing Sunſhine, in order to cut down and bind our Sheaves. The poor Labourers, by theſe means, ſecure themſelves a ſhare of this beneficial Grain, which was denied them by their deſtitute Circumſtances of Life, and the Infertility of their native Provinces. They paſs from Places where the Harveſt is compleated, to thoſe Parts where it proves more tardy, and cloſe the Scene of their Labours with the *March* Grain. Theſe good People reviſit their beloved Families in Autumn, and no longer dread the Approach of the melancholy Seaſon of Winter. Their Labours have ſupplied them with Bread, and an eaſy Satisfaction of Mind; and they have now acquired a Sufficiency to free themſelves from the Importunities of Tax-men.

Chevalier. The Poor as well as the Rich are now crowned with Plenty; but as we ought to be capable of preſerving the Gifts of Nature, I muſt intreat you, Sir, to refreſh my Memory, with the Obſervations you formerly made, in a tranſient manner, on the Method of ſtoring up Corn for a length of Time.

Methods for preſerving Corn.

Prior. Corn is very different from Fruits, with reſpect to the Manner of its Preſervation. As theſe latter are only intended for our Refreſhment, in the Courſe of their Succeſſion for a few Weeks, and, at moſt, can only be preſerved through the enſuing Winter; all their Covering is but a light Robe, which, however, is proportioned to the Nature of the Seaſons, in which we are allowed their Enjoyment. Corn, on the other hand, which is to be our Nouriſhment in all Seaſons, inſtead of being cloathed with a ſlight and pliant Array, enfolds and ſecures the Meal, that is to be our future Support, in a ſtrong and ſubſtantial Texture, in conſequence of which it continues good for ſeveral Years, and is qualified for Tranſportation to other Lands that need it; to which we may add, that it is hereby rendered capable of being reſerved in publick Granaries, for preſſing Occaſions, and of being kept for ſeveral Centuries.

The firſt Method of preſerving Corn is to let it remain in the Spike, which is its natural Manſion, and furniſhes us with the only Expedient for conveying it to the Iſlands and Provinces of *America*, that ſollicit us for a Supply of this Food. But if we neglect to ſend it to them in the Ear, as well as in cloſe Caſks, it will evaporate its Subſtance, and be unproductive whenever it happens to be planted. The Inhabitants of thoſe remote Countries ſow it in the Ear, for its better Preſervation, and raiſe it to Maturity by that Precaution; but this Method of Preſerving it would be attended with ſeveral Inconveniencies among us. Corn is apt either to rot, or ſhoot up, when there is the leaſt Intermixture of Humidity in the Heap. It is likewiſe infeſted by Legions of Rats, who, amidſt the Security they derive from the Solitude of the Granary, conſume the Labours of our Hands without the leaſt Moleſtation; and the Detriment is frequently very great, before it happens to be diſcovered. Our want of Straw likewiſe obliges us to ſeparate the Grain from the Ear, and which is performed by ranging one Sheaf by another, on the Barn-Foor, and ſtrongly threſhing them with Flails. The Antients diſengaged the Corn from the Ear, by cauſing an Ox to trample upon the Sheaves, or by drawing a heavy Carriage over them, which produced the ſame Effect. The *Italians* and *Gaſcoigns* ſtill employ Wains or Sledges in this Manner. The *Turks* cruſh the Ears of Corn with broad Planks, planted with Iron Spikes, or ſharp Flints; but nothing has yet been found to be more effectual than the Arm of a ſtrong Threſher, who by rearing aloft the Staff, on which the Flail is hung, diſcharges a Stroke on the Sheaves, with a Strength proportionable to the Height from which the Flail deſcends.

The ſecond Method of preſerving Corn is to turn and winnow it frequently, when it is out of the Ear, and likewiſe to remove it, from one Place to another, with a Shovel, or to pour it through a Trough, or Mill-Hopper, wide at the Top, and narrow at the Bottom, into others placed below, and from whence it is again raiſed by a Crane, or ſome other Machine, to the upper Floor. When the Corn has been thus moved and aired, every fifteen Days for the firſt ſix Months, it will require leſs Labour for the future, if Care be taken to lodge it in a dry Place. The Air and Motion are ſufficient to preſerve it, in a moiſt Seaſon, from Heat and Duſt, as likewiſe from Mites. But if theſe Inſects are permitted to ſlide into the Heap, and continue there for any Length of Time, they will ſoon ſwarm like Ant-Hills, and their Devaſtations will reduce the Corn to a Heap of Duſt. Perpetual War, therefore, muſt be declared againſt theſe Invaders, by moving the Grain a-new, and rubbing the Places adjacent to it with Oils and Herbs, of ſuch a ſtrong Odour, as will be ſufficient to chace them away. Garlick and Dwarf-Elder are very effectual on this Occaſion. Theſe Animals may likewiſe be expoſed to the open Sun, which immediately kills them; or the Heap of Corn may be conſigned to a Brood of Chickens, who will quit the Grain, 'tis reported, to prey upon the Mites, as faſt as they appear.

Chevalier. Before we intruſt the Corn to their Vigilance, it would be proper to offer them a certain Number of Grains, mixed with ſome of the Mites, that we may be ſatisfied whether the Fowls act with Integrity.

Prior. I have known a Farmer depend on their Fidelity; but it would not be amiſs to make the Experiment.

When the Corn has been preſerved from all Impurities, for the Space of two Years and has exhaled all its Fire, it may be kept forty, fifty, or even a hundred Years, by lodging it in Pits, covered with ſtrong Plants, cloſely joined together; but the ſafer Method is to cover the Heap with a thin Surface of quick Lime, which ſhould be diſſolved, by ſprinkling it over with a ſmall Quantity of Water. This Lime cauſes the Grain to ſhoot to the Depth of two or three Fingers, and incloſes them with an Incruſtation, through which neither Air nor Inſects can penetrate.

Chevalier. I am ſurpriſed at the different States, through which Corn paſſes, as well as at the Dangers, to which it is obnoxious, and the Care it requires from Man, before it can be fit for his Nouriſhment.

Prior. We have had Recourſe to a thouſand Expedients, to ſecure the Enjoyment of this Grain, and to alleviate the Labours it coſts us. We employ hard and poliſhed Inſtruments, to facilitate the Toil of rearing it, and conſign the moſt painful Part of the Fatigue to Horſes and Oxen. We accelerate the neceſſary Motions and Diſpatch of

Huſbandry, by Wheels and Leavers, and a hundred other Machines, which are uſeful in gathering, threſhing, tranſporting, grinding, and baking. But as dextrous and inventive as Man has been for the Mitigation of his Labours, and the frugal Management of his Time; Corn, which is the beſt and moſt neceſſary Nouriſhment, obliges him to ſubmit to a perpetual Round of inevitable Toils. 'Tis here that the Deity has made Neceſſity prevail over Indolence, more than in any other Inſtance whatever; and tho' his Providence alone, encreaſes what Man endeavours to propagate by Plantation and Culture, he is more deſirous to conceal his Gifts and Benedictions, under the Veil of human Labour, than to render us inactive, by ſupplying us with a conſtant Flow of Liberalities, which would only coſt us the Pains of collecting them together.

VINES.

DIALOGUE XIII.

The COUNT. *The* COUNTESS.
The PRIOR. *The* CHEVALIER.

Count. THE Declivity of the Hill begins to be diſagreeable, and we ſhall walk with more Satisfaction on the moſſy Turf that borders the Vines; where we may take a View of what the Year is like to afford us.

Chevalier. The Mountains, that continually riſe in our Way, are very incommodious; and as the Earth is allotted to us for our Habitation, would it not afford us a more amiable Appearance, were it laid out in one continued Level?

Counteſs. Let me deſire you, Sir, not to entertain any unfavourable Opinion of Mountains and Hills; ſince they preſent us with pleaſing Views, and ſurpriſing Amphitheatres, that enliven our Paſſage with a Number of fine Varieties. They likewiſe render our Habitations infinitely more agreeable, and adminiſter Complaints to none but Travellers.

Count. The Extent of our Domain is increaſed, and almoſt doubled by theſe majeſtic Elevations.

Prior.

The Uſefulneſs of Hills.

Prior. Were we only to enjoy Plains, we ſhould ſoon be deſtitute of many Accommodations. The Hand, which formed this Globe of Earth, has diverſified its Surface, with a Wiſdom that attracts our Admiration and Gratitude, in proportion to our Perceptions of its Beauty. The great Creator did not think it ſufficient to afford us an Extent of level Soils, endued with all the Qualities, which are requiſite for the Production of the various Species of Grain, that furniſh us with our chief Subſiſtence; but he has likewiſe raiſed Hills and Mountains, at proper Intervals of Diſtance, to ſupply us with favourable Situations for Vines, and other Plants that require ſtrong Reflections of Light, to compleat the Maturity of their Fruits. Take a View of all that Land, which deſcends in a ſlant in order to receive a direct Emanation of the ſolar Rays, which would be tranſmitted in oblique Lines to a Plain. May not theſe Declivities be conſidered as ſo many Grand Eſpaliers, which invite us to embelliſh them; and where the Vigour of the reflected Beams is united with the Purity of an open Air? This Almighty Hand, therefore, is equally beneficial and maſterly in its Operation, and has imparted, as you may obſerve, a number of Graces and uſeful Qualities to thoſe Portions of Land, which ſeem to be irregular, at the firſt View.

Count. The various Advantages that reſult from Mountains, furniſh us with ſome of the fineſt Subjects for Converſation; and we perhaps may take an Opportunity to ſatisfy the Curioſity of our dear Chevalier on that Article; but, at preſent, we ſhall make a ſufficient Apology for Mountains, by declaring them to be inſtrumental in ſupplying us with Wine.

Chevalier. If they render us ſuch Services as theſe, they no longer ought to be the Subject of any Complaints. But is the Vine incapable of a Cultivation on a level Soil?

Count. It is ſeldom very ſucceſsful there, for as *Virgil* obſerves,

Bacchus, *on airy Hills, with Pleaſure pours*
The rich Profuſion of his choſen Stores.

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* —— apertos
Bacchus amat colles, *Georg*. 1.

I may add too, that it will not proſper on all Sorts of Hills, for which Reaſon it is uſually planted on ſuch as have either an *Eaſtern* or a *Southern* Aſpect, provided the Land be properly tempered in other Reſpects.

Counteſs. The Sight of theſe dry Hills and hanging Lands, which are incapable of being cultivated by the Plough, would incline one to believe they are all unfertil; and yet they are yearly covered with the fineſt Verdure, and preſent us with moſt delicious of all Fruits.

Prior. The ſame Motive to Admiration, which we diſcover in the lean Soil that nouriſhes the Vine, is equally evident in the Plant itſelf, which ſupplies us with Wine. Who, till the Fact had been experienced, could ever have imagined, that a Growth of deſpicable Wood, more deformed and brittle than any other Claſs of Plants, and the moſt uſeleſs of all, when cut down, ſhould yet be capable of producing ſo exquiſite a Liquor! If we only plant it in a dry and ſandy Soil, which diſcovers all the outward Marks of Sterility; this very Soil, when it has once been diluted with moderate Dews, will unfold a multitude of Cluſters, that ſwell with delicate and ſprightly Juice, for the Accommodation of Man. From whence has the Vine derived a Set of Qualities ſo ſuperior to its mean Original, and the Dryneſs of its native Earth? By whom has it been animated with ſuch a Flow of Spirits, and with ſo much Fire? And by what Precaution has its Juice been qualified to preſerve ſuch extraordinary Vigour and Perfection, for many Years; to remain uninjured at the Shocks of Carriages, and Tranſportations to diſtant Lands; and to be converted into a Liquor ſtill more ſtrong and penetrating, and which has received a thouſand Variations from Curioſity and Experience?

Wine the Source of Joy.

Counteſs. I am not ſo much ſurpriſed at the Production and agreeable Flavour of Wine as I am at its beneficial Effects. Other Liquors, whether natural or artificial, as Beer, Cyder, Tea, Chocolate, and Coffee, create Silence and ſerious Airs, for the generality, and conſign thoſe who drink them, to a melancholy Caſt of Mind. If they ſometimes aſſemble a Company around them, the Converſation either aſſumes a moralizing Turn of Gloomineſs, or degenerates into an inſipid Flow of Politics, which ſometimes

times ends in a diſobliging Warmth of Argument. But it is the peculiar Privilege of Wine to introduce Vivacity and Joy, wherever it appears. It unfetters the Tongue, invigorates the Mind, and prompts the Heart to utter its pleaſing Tranquillity in chearful Songs.

Prior. As Wine is the infallible Source of Joy, it may conſequently be conſidered as the Soul of all our Feaſts. No Entertainment can be agreeable, without the Miniſtration of this generous Liquor. Wine alone is ſufficient to compenſate the want of many exceſſive Dainties, but nothing can be ſubſtituted to any Satisfaction in its Room, and no Varieties have Merit enough to reconcile the Company to its Abſence.

Count. We may add to theſe excellent Qualities, that it diffuſes an Air of Serenity through all the Features, by its Diſſipation of Sadneſs, and every Cloud that penſive Muſings had drawn over the Mind. It brings inveterate Enemies together, and cauſes them to reviſit each other, with an Air of Openneſs and Unconſtraint. Anger no longer lightens in their Eyes; they grow conſcious of a mutual Amiableneſs; and all their Averſion diſappears in a reviving Friendſhip. Wine, by theſe Means, becomes the perſuaſive Mediator of the ſofteſt Reconciliations, and may juſtly be conſidered as one of the moſt engaging Bands of Society.

Prior. It likewiſe proves the moſt effectual Support to Man, in the Courſe of his fatiguing Employments; either by cauſing him to enter upon them with Alacrity, or by a ſudden Reſtoration of the Vigour he had exhauſted in their Accompliſhment. The Deity, amidſt the rigid Labours, to which he has made it abſolutely neceſſary for Man to ſubmit, was unwilling to overwhelm him with their Weight, or to leave him deſtitute amidſt the Gloom of his melancholy Thoughts. While his Providence diſpoſes the Earth to furniſh the induſtrious Huſbandman with ſuch Bread as is qualified to nouriſh and ſtrengthen him, it likewiſe prepares for him a Liquor which gladdens his Heart, and reconciles him to all his Toils. Take a View of that poor Man, who bends under the Burthen of Wood that loads him, and labours on with a ſlow and unſteddy Peace. Two Glaſſes of Wine deducted from the Collation I ſee preparing for us in this agreeable Meadow, will be ſufficient to change the Anxiety of his Air, and the painful Manner of his March in an Inſtant. In ſhort, the Alteration will be ſo extraordinary, that you would hardly believe him to be the ſame Perſon.

Chevalier. The Experiment ſhall be made immediately, and I intend to charge myſelf with the Cup-bearer's Office.

Prior. Inſtead of the dejected Mien which disfigured his Countenance a Moment ago, the Wine has ſpirited his Features with an Air of Gaiety, and ſuch a Freſhneſs of Colour, as neither Eſſences nor Paint can imitate. Bread ſtrengthens a Man for his Work, but Wine enables him to act with Vivacity, and renders his Labour agreeable. The Soul, which was before involved in a black Melancholy, ſeems to revive at the chearing Draught. She re-aſſumes her Powers, ſheds her Energy through every Part, diſpenſes Agility to the Feet, and teaches the Lips to ſpeak the Language of Joy. All her Anxieties are no more remembered; ſhe is inſpired with lively Ideas, and the Timidity which ſeemed to contract her Faculties, by confining her to the Proſpect of her Pains, immediately reſigns its Empire to ſoothing Hopes and ſteddy Reſolution.

Ounteſs. I have diſcovered another Property in Wine. It is ſo exceeding friendly to Man, that it varies its Flavour agreeable to our Diſpoſitions. If we are bleſſed with a State of Health, Wine delights the Smell, regales the Palate, ſtrengthens the Stomach, and ſeems to intimate to us its Conformity to our Wants. But if we happen to be indiſpoſed, its inchanting Flavour is changed to an inſupportable Bitterneſs; and it then ſeems to inform us, in the moſt obliging Manner, that its Qualities would increaſe our Diſorder.

Chevalier. And yet the Wine itſelf has not ſuſtained any Alteration.

Prior. The Change is accompliſhed only in ourſelves. But is it poſſible for us to miſapprehend that wiſe Oeconomy, which has diſcharged us from the Trouble of tedious Examinations, and uncertain Conjectures, with Reſpect to what Food may prove beneficial or injurious to us, ſince the ſame Oeconomy has made ſo admirable a Regulation of our Diet, by the compendious Method of pleaſing Anticipations and ſalutary Diſguſts?

Chevalier. You have given Wine its due Commendations; but it is not always a beneficial Liquor. It renders ſome People extravagant, and even works them into Madneſs; and I have heard ſome Perſons ſay, that it would be advantageous to Mankind, were all the Vines in general rooted up.

Counteſs. The moſt nouriſhing Food will occaſion Diſtempers, when we uſe it with Immoderation. The Abuſe of Wine, therefore, is not a ſufficient Reaſon for ſuppreſſing it entirely.

Prior. We have frequently heard of pretended Philoſophers, and unjuſt Law-givers; ſuch as *Pentheus**, *Domitian*†, and *Mohammed*‡, who have endeavoured to deprive Mankind of a Benefit afforded them by the Creator, tho' he was not unconſcious that it would be ſubject to ſome Abuſe. Thoſe Perſons, therefore, are moſt extravagantly partial to themſelves, when they affect to be wiſer than their Maker, and to eradicate the Vine, which he himſelf has planted for the Solace of our Labour. Wine is never neglected by any Nations when they can procure it, either by Cultivation or Commerce. The Uſe of it is equally antient and extenſive, ſince it is diffuſed over all the Earth, and aſcends, at leaſt, as high as *Noah*, the common Father of all Nations.

Counteſs. I ſhould be extremely pleaſed to hear the Hiſtory of the Progreſs of the Vine, and its Juice. The *Chevalier* likewiſe has an Inclination to be entertained with the Manner of planting and cultivating Vines, together with the Particulars of a Vintage. Let us therefore be ſeated; the Prior will favour us with the Hiſtory of this Plant; and his Lordſhip, who has cultivated moſt of the Species we uſually ſee, will acquaint us with the proper Methods of making Wine. The Prior has already told us, that the Uſe of this Liquor is as ancient as *Noah* himſelf; but may we be permitted to believe it was eſtabliſhed before the Time of that Patriarch; or is he to be reputed the firſt Planter of the Vine?

Prior. We may believe, without the leaſt Hereſy, that the Vine is as old as the World itſelf. *Noah* was induſtrious to communicate to Mankind the beſt Diſcoveries he had made before the Deluge. With this View he began with the Renovation of Agriculture; and as he devoted his firſt Care to the Plantation of the Vine, and the Extraction of its Juice, we may reaſonably ſuppoſe that his Motive to this Proceeding was the Certainty he had acquired of its Uſefulneſs.

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* Ovid Metam.

† Cedren. & Euſeb. Chron.

‡ See the Koran of Mohammed.

Chevalier. But would he ever have ſuffered himſelf to be intoxicated, had he known the Nature of Wine?

Prior. That Accident is no Proof that he was unacquainted with the Qualities of the Grape; and we can only infer from it, that its Impreſſions were more potent upon him, after a long Diſcontinuance of its Uſe.

But however that Fact may be, the Propagation of the Vine was gradually extended from Land to Land by his Deſcendants; and we find that one of the principal Parts of the external Worſhip practiſed by moſt Nations, even in the remoteſt Ages, conſiſted in offering a Tribute of Bread and Wine to the Deity, as an Act of Adoration, and to teſtify their grateful Senſe of his Goodneſs in bleſſing Mankind with Life, and the proper Accommodations for its Support. This was the uſual Oblation; and when the Blood of any Victim was ſhed, that Sacrifice was always accompanied with a handful of Meal, or a Cake *, and likewiſe a Libation of Wine.

Theſe Feſtivals were celebrated in the open Fields, and generally on ſome remarkable Eminence; and they were annually renewed at ſome ſtated Period. The Offering was always ſucceeded by a Feaſt, to which the People aſſembled to eat with a ſocial Joy, as a Teſtimony of their mutual Union, and to intimate their regarding themſelves as Members of one Family; though in Proceſs of Time theſe Feaſts began to degenerate into Riot and Intemperance.

Such was the Original of Feſtivals of Wine, which are ſo antient in their Inſtitution, and were afterwards tranſmitted from *Aſia* to *Europe*, and other Parts of the World.

Chevalier. There were ſome Circumſtances in the *Bacchanalian* Feaſts, which had no Relation either to Feſtivals, or Wine. What could be the meaning of thoſe Exclamations of *Io* and *Ivohe*, which were ſo frequently repeated? Of what uſe were the *Thyrſi*, or thoſe little Spears that were adorned with twining Flowers and Vine-Leaves? Why did thoſe who celebrated theſe Wine-Feaſts run from Mountain to Mountain, and aſſault every Animal they met in their Way; and when they had hewed them in Pieces, what could induce them to ſtain their Faces with the Blood? Wine never prompts People to ſuch abſurd Actions as theſe.

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* *Mola* was a Barley-Cake, which they placed on the Head of the Victim; and from thence the Verb *immolare*, to ſacrifice, is derived.

The Original of Wine-Feaſts.

Prior. The moſt probable Conjecture I can offer with reſpect to the Origin of theſe extravagant Feſtivals is this; they at firſt were the Inſtitutions of Piety in Honour to the true God, but were afterwards disfigured by the Circumſtances that were ſuperadded to them.

Be pleaſed to obſerve, Sir, that all Nations in general, have a natural Deſire to perpetuate the Remembrance of great Events, by annual Repreſentations of them on ſome particular Days; and I ſhall confirm this Obſervation by one or two known Inſtances. It was formerly the Cuſtom in *France*, and it ſtill prevails in ſome of our neighbouring Nations, to celebrate *Chriſtmas*, *Eaſter*, and ſome other Feſtivals with Dramatic Repreſentations of the Myſteries we adore. And tho' the Chriſtian Religion, which entirely reſides in the Heart, and in a Life of Virtue and Integrity derives but little Advantage from theſe tumultuous Practices; they, however, are always pleaſing to the People, becauſe they are ſuch Devotions as amuſe them, without any inordinate Influence on their Paſſions. The *Mohammedans**, in the Pilgrimage to *Mecca*, where they believe that *Iſhmael*, the Patriarch of the *Arabs*, formerly reſided, repreſent the Flight of *Hagar* into the Deſert, by ſome particular Ceremonies. They look behind them, and, on each ſide, they ſearch about with a ſeeming Inquietude, and afterwards expreſs a ſudden Joy, as if they had found what they ſought for. You may diſcover, in theſe Ceremonials, ſome Traces of the hiſtorical Account of the Well where *Hagar* and her Son quenched their Thirſt. Theſe Examples are ſufficient to my preſent Purpoſe.

All Antiquity is full of the like Ceremonies, which were inſtituted to preſerve the Memorial of thoſe Events in which the People thought themſelves moſt intereſted. In the Times that immediately ſucceeded the Deluge, when the Sons of *Noah*, inſtead of diſperſing themſelves, in order to re-people the Earth, were determined to dwell together, and employed themſelves in Building, in the Parts adjacent to the *Euphrates*; all the other Regions remained uncultivated. Whole Continents were darkned with Woods, and the Animals multiplied without Number. After the Diſperſion, when each Family began to be eſtabliſhed in the Lands they had choſen for their Settlements; the ſavage Beaſts iſſued out of their gloomy Wilds, and infeſted the Labours of the Inhabitants by their Devaſtations; ſo that the new Colonies were never certain of enjoying either their Harveſts, or the Fruit of their Vines. To check the Courſe of theſe Calamities, *Nimrod*, the Grandſon of *Ham*, led the Youths of his Canton to the Chace, cleared the Country of the rapacious Animals, and roſe from a *mighty Hunter*, to the Dignity and Dominion of a Monarch. The People after his Death, not only celebrated ſolemn Feſtivals at his Tomb, and ſung his Praiſes, after thoſe of the Deity, which introduced the firſt Degeneracy of their religious Worſhip; but they likewiſe intermixed theſe Feſtivals with Repreſentations of thoſe famous Huntings, which had ſecured Fertility and Safety to the neighbouring Countries. They uſually began with Sacrifices and Invocations to the God *Jao*, or *Jevoe*. They likewiſe carried a Spear, becauſe they were advancing to a Chace; but this Spear was encompaſſed with Flowers, and Vine-Leaves, becauſe they were only to exhibit the Repreſentation of a Chace; in conſequence of which, they ran from one Mountain to another, and gave their Imitations an Air of Reality, by ſhedding the Blood of thoſe Beaſts they happened to meet. Thoſe, who were covered with the greateſt Quantity of Blood, ſeemed to have been pre-eminent in the Chace: And as ſome of *Nimrod's* Expeditions were employed in hunting down the wild Beaſts, and others were undertaken by him, with a View to inſtruct the People in the Manner of cultivating Corn and Wine; it became cuſtomary at theſe Feaſts to carry, in a pompous Manner, the Van, with which they winnowed their Corn; and a Portion of Wine was diſtributed among the Aſſiſtants. No Ceremonies could be better calculated to perpetuate the Memory of *Nimrod's* Service, and theſe Remarks are at leaſt a Sketch of what may be ſaid with Relation to the Original of Wine-Feaſts.

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* See Reland's Mohammediſm.

Counteſs. It is very eaſy to diſcover the Reaſon why they were always received with univerſal Approbation. While Devotion conſiſts in taking an agreeable Progreſs through the Country, and is animated with chearful Feaſts, it will never want Profeſſors. But let us proceed in the Hiſtory of the Vine.

Prior. This Plant was tranſmitted from *Aſia* to *Europe*; and the *Phœnicians*, who were early Navigators, eſpecially along the *Mediterranean* Coaſt, transferred it to moſt of the Iſles, as well as to the Continent. It ſucceeded to Admiration in the Iſlands of the *Archipelago*, and was afterwards introduced into *Greece* and *Italy*.

Pliny * was perſuaded, that the Libations of Milk, inſtituted by *Romulus*, and *Numa's* Prohibition to honour the Dead, by pouring Wine on their Tombs, made it evident that Vines were very ſcarce in *Italy* at that Time. They were multiplied in the ſucceeding Ages; a Set of *Gauls*, who had taſted the Liquor, formed a Reſolution to eſtabliſh themſelves in the Countries that produced it; and inſtead of employing Letters and Exhortations, to engage other *Gauls* in the intended Expedition, they ſent Qantities of Wine to all the adjacent Parts; upon which the Inhabitants of ſeveral Provinces immediately quitted the Acorns of their Foreſts. The *Alps* were inſufficient to check their Progreſs, and they extended their Conqueſts along the two Shores of the *Po*, where they applied themſelves to the Cultivation of the Fig, the Olive, and the Grape in particular; ſuch was the Motive to their Enterprize; and inſtead of blaming our Anceſtors for having Recourſe to Arms, in order to ſecure the Enjoyment of Wine, *Pliny* juſtifies their Conduct, by alledging the Purity of their Intentions. It has likewiſe been thought that thoſe *Gauls*, who eſtabliſhed their Settlements along the *Po*, tranſmitted to us the uſeful Invention of preſerving Wine in wooden Veſſels exactly cloſed, and of confining it in that ſtrict Incloſure, notwithſtanding its natural Impetuoſity. Its Preſervation and Tranſmiſſion to diſtant Parts, became more practicable from that Period than it could be before, when it was kept in earthen Jars, that were eaſily ſhattered, or in Skins, which were liable to be unſewed, or to grow mouldy.

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* Hiſt. Nat. l. xiv. Sect. 14. Cic. pro Fonteio.

The Inhabitants of *Marſeilles* and *Narbon* had ſome Vines, when *Gaul* was conquered by *Julius Cæſar*; but the Progreſs of their Cultivation was prohibited by *Domitian*; and the *Gauls*, as well as the *Britons* and *Spaniards*, were not permitted to plant them till the Reign of that excellent Emperor *Probus* *. He was ſenſible that the Promotion of Agriculture ought to be inſeparable from a good Government; and that the Reign of a Prince can never be propitious, unleſs he be ſedulous to procure Plenty and Tranquillity to the People of whom he is conſtituted Father. The Plantation of Vineyards in *Britany* in the Northern Part of the *Celtic* Provinces was attended with unſurmountable Difficulties on the Part of Nature; and the Inhabitants of thoſe Countries, and even of the *Celtic Gaul*, continued to extract their uſual Drink from Barley, for want of a ſufficient Growth of Vines;

Unthriving Vines compell'd the Celtic *Swain*
To force a Liquor from the bearded Gran †.

But they at laſt were planted by Degrees in all Countries where there was any Poſſibility of their Succeſs. St. *Martin* planted one in *Touraine*, before the Cloſe of the fourth Century. St. *Remi*, who lived at the latter End of the fifth, and the Beginning of the next Century, left to ſeveral Churches, by his Will, the Vineyards he poſſeſſed in the Territories of *Rheims* and *Laon*, with the Slaves he employed in their Cultivation. From that Time theſe Plants began to be propagated through all *France*, and they probably invited the *Franks* into *Gaul*, as they had already engaged the *Gauls* to fix their Settlements in *Italy*. The other *German* Nations, who had no more Conqueſts to purſue, endeavoured to open a Tract of Land in the *Black Foreſt*, and to plant Vines along the Banks of the *Rhine*.

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* Anno Chriſti 282. Vopiſcus in Probo.

† See the Epigram addreſs'd to Beer, by the Emperor *Julian*, in the *Anthologia*.

Σε Κελτοὶ,
Τῇ ϖενίῃ βοτρύων τεῦξαν ἀπ' ἀϛαχύων.

Hungary had likewiſe its Vineyards; and when they afterwards were propagated in all Parts, the Inhabitants grew ſatisfied with their Condition, and were no longer ſollicitous to ſecure new Settlements.

Counteſs. Let any one tell us, after this Account, that Wine is only fit to promote Diſorders in the World. *Europe* never enjoyed a pleaſing State of Tranquillity till Vineyards were planted by its various Inhabitants.

The different Sorts of Wine.

Prior. It will be proper to accompany this Hiſtory of the Vine, with a ſhort Account of its Juice. The different Species of it are almoſt innumerable, and they vary in their Colour, their Flavour, their Qualities and Duration. We may even ſay, that the Sorts of Wine are as much diverſified as the Soils that produce them; they, however, may be all comprehended in two Claſſes, namely, the ſweet Wines, and thoſe which are dry*.

The ſweet Wines are thoſe which have a rich and racy Flavour, not unlike that of Honey; and their Perfection conſiſts in the Intermixture of an agreeable Bitter with their native Perfume. *Muſcadine* Grapes † are the fitteſt for theſe Sorts of Wine, but they require a hot Climate for the Accompliſhment of their due Maturity. The Claſſes of this Wine, which are moſt eſteemed among us, are thoſe of *Cituadè*, and St. *Laurence* in *Provence*; or *Frontignan*, in *Languedoc*; of *Condrieux*, in *Lyonnois*; of *Artois*, in *Burgundy*; of *Riveſalte*, in *Rouſſillon*; and ſome other Kinds.

Foreign ſweet Wines are *Tocai*, which grow in a very ſmall Quantity, on a Hill in *Hungary*; *Verdée*, *Muſcadel*, and *Montefiaſconè*, which are all *Tuſcan* Wines; the *Greek* Wine of Mount *Veſuvius*, which deepens into a golden Yellow; and the *Lachryma*, which is a very red Wine, and is likewiſe produced by the ſame Mountain, when it ſuſpends its Devaſtations of the Vineyards that are near its Summit. To theſe we may add the Wines of *Malaga*, which are cultivated in the Parts adjacent to *Gibraltar*; together with thoſe of *Alicant*, and ſeveral other Provinces in *Spain*; nor muſt we forget the Wines of *Madera*, which is an Iſland belonging to the *Portugueſe*, and is ſituated at the

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* Vinum dulce; Vinum auſterum, vel ſeverum.

† Uvæ apiciæ, vel apianæ, ab apibus & mellis ſapore.

Entrance into the Ocean. The beſt *Canary* Wines are brought from the Iſland of *Palma*. *Malmſey*, which is a very thick Wine, is produced in the Iſland of *Candy*. The other *Greek* Wines grow in *Chios*, *Tenedes*, *Mitylene*, and other Iſles in the *Archipelago*. The Wine of *Schiras*, in *Perſia*, is of the ſame Nature.

All Wines have three principal Parts, which are Oil, Salt, and volatile Spirits. The generality of ſweet Wines are incapable of acquiring that juſt Temperament, which conſiſts in a blended Sweetneſs and Acidity, without the Operation of Fire. In order to accompliſh ſuch a perfect Incorporation of their Oil and Salt, as may correct the Paignancy of the one, by the Sweetneſs of the other; the Grapes muſt be expoſed to the Sun, on their native Stock, till they begin to grow dry; and to prevent the Grapes from deriving any future Supply of Juices from the Earth, which would retard the Completion of this Intermixture, it will be proper to twiſt the Pedicles, by which the Bunches are faſtened to the Vine. The next Employment will be to preſs out the Liquor, which will then have acquired the Conſiſtence of a Syrup; and theſe are the Particulars of the firſt Method. The ſecond conſiſts in expreſſing the Muſt of the Grapes when they are ripe, and in boiling it, ſo as to cauſe a Sediment to riſe to the Top of the Veſſel *. This Operation, which is always violent, communicates a Taſte of Fire to the Wine, but it likewiſe qualifies it for a longer Preſervation. The third Method is to boil the Juice of the Grapes, till it be reduced to half its original Quantity, or even to one third, and it will then thicken into a very tenacious Syrup.

The Care which is taken to dephlegmate the Wine, by the two firſt Methods evaporates moſt of its volatile Spirits; in Conſequence of which, it always continues in a languid State, and its Fermentation can never be perfect, becauſe it is unnatural. It is likewiſe impoſſible for theſe Wines to be light and fine, for which reaſon they may be fitter than our Growths for hot Countries, where the Blood is rarified to a greater Degree, and requires a ſubſtantial, rather than a ſpirituous Liquor. It is therefore not at all ſurpriſing, that the *Italians* and other *Southern* People, who have been habituated to a vinous Syrup, which is proportioned to their Conſtitutions, are rather diſguſted than pleaſed with the Vivacity of our Wines.

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* Aut dulcis Muſti vulcano decoquit humorem,
Et follis undam tepidi deſpumat aheni. *Georg.* 1.

Or the Rich muſt his timely Care proclaims,
While he refines it o'er the crackling Flames.

Dry Wines, on the contrary, have the Salts and volatile Spirits for their predominant Parts, and theſe are rendered ſuch by a perfect Fermentation, which diveſts them of the greateſt Part of their Oil, and ſo attenuates and ſubtilizes the Remainder, as not to deprive the Salts of thoſe ſtimulating Qualities, by which they affect the Tongue with agreeable Impreſſions. Of this Nature are the *French*, the *Moſelle*, the *Rheniſh*, and ſeveral *Hungarian* Wines, which are more ſalutary to the *Northern* People, by rendering their Blood volatile, and refining it from all groſs Humours.

Theſe Wines are rendered very defective, by their being either green or luſcious, groſs or heady. Their luſcious Quality is a great Imperfection, becauſe it diſpirits the Heart, and diſorders the Stomach, inſtead of reviving them with gay and pleaſing Impreſſions. The moſt excellent Wines are obnoxious to this Defect, as they likewiſe are to a Headineſs of Fumes; but each of theſe ill Qualities is uſually corrected by a proper Age. Greenneſs is not ſo much the Defect of the Wine, as it is of the Seaſon, which has not ſufficiently ripened the Fruit; or it may be owing to the Proprietor, who, perhaps, has been too precipitate in his Vintage. In a word, it is rather an Abortion, than any regular Proceſs of Nature. The harſh and terreſtrial Flavour, is the greateſt Imperfection of all; and it reſults either from the Sun itſelf, or an injudicious Cultivation, of the Vine.

Wine may be ſaid to have all its good Qualities, when it proves full, and at the ſame time ſoft to the Palate; when it preſerves a good Body, in Conjunction with a due Lightneſs; and when it retains a light Colour, a pleaſing Scent, and a delicate Flavour. I fancy, my dear *Chevalier*, you will be deſirous of obtaining ſuch Wine as this, whenever you have an Inclination to amuſe yourſelf with the Culture of your Vines; and you may be certain of Succeſs, if you will purſue the Directions you will now receive from his Lordſhip.

Count. There are various Methods of forming the Vine, and conducting the Proceſs of a Vintage. The Plant itſelf is naturally weak; but Nature has ſupplied it with ſmall Tendrils, or a kind of Arms, which it claſps around the Bodies that occur in its Way, and ſecures itſelf, by their Aſſiſtance, againſt all Shocks of Wind. We rear it on a ſingle Prop in *France*; but it is cuſtomary, in ſome other Countries, to ſupport it either with a ſtrong Reed, a long Pole, or wooden Forks. The prevailing Method in *Greece* and *Italy* is to train up the Vines to Elms, along the Branches of which they extend themſelves without Reſtraint, and gradually aſcend to the Top.

> * *The next Precaution of his rural Cares*
> *A Range of Reeds, and forked Props prepares;*
> *On theſe the Vines thier claſping Progreſs form.*
> *And brave the Rigours of each riſing Storm;*
> *Aſcend the hoſpitable Elm, and ſpread*
> *Their ſwelling Cluſters o'er its verdant Head.*

The *Aſiatics*, who have ſeveral Species of very large Grapes, are obliged to diſpoſe their Vines on raiſed Works of Lattice, which, by theſe Means, are converted into ſo many verdant Pavilions, under which the Natives enjoy the Refreſhment of a breezy Shade. The ſame Soil frequently ſupplies them with Rice or Corn for their Food, and Wine to crown their Bowls; at the ſame Time that the Growth of Mulberry-Trees ſuſtain their Vines, and nouriſhes the Silk-Worms that array the Natives.

The particular Method practiſed in each Country is thought, by the Inhabitants to be beſt adapted to their Neceſſities. They would imagine themſelves infinitely prejudiced, were they to act in any other Manner; and I confeſs, it would be imprudent to recede from an eſtabliſhed Cuſtom, unleſs it has been made evident, by repeated Experiments,

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* ——— Supereſt ———
Tum leves calamos & raſæ haſtilia virgæ,
Fraxineaſque aptare ſudes, furcaſque bicornes;
Viribus eniti quarum & contemnere ventos
Aſſueſcant, ſummaſque ſequi tabulata per ulmos. *Georg.* 2.

periments, that a different Proceeding would be more effectual. But I have obſerved in my Travels, that People generally act by Rote; and we have a vaſt number of Vineyards, the Vines of which would be infinitely better, and might be kept much longer than they are at preſent, were they cultivated in a more regular Manner.

My Inclination to plant a Vineyard on ſome Part of my Eſtate, made me attentive to the different Methods that are practiſed in our Provinces; and I could not diſcover any that deſerved to be ranked in Competition with thoſe Precautions that have been taken by the Inhabitants of *Champaign*, for fifty Years paſt. Their Wine was indeed very excellent, and much eſteemed before that Time, but it wanted a ſufficient Body, and was incapable of tranſportation to diſtant Parts; till, at laſt, the Natives, by a long Courſe of Expeirence, acquired the proper Methods of tinging it with the Complexion of a Cherry, or the Eye of a Partridge: They could likewiſe brighten it into the whiteſt Hue, or deepen it into a perfect Red. In a word, they improved it to ſuch a Degree, that it will now retain all its fine Qualities for ſix or ſeven Years, and very frequently for a longer Space of Time.

The exact Obſervation of this Method in *Cuiſſi*, *Pargnan*, and other Cantons of *Lyonnois* has produced a Growth of Wines, which are eſteemed by all *Flanders*, as much as thoſe of *Burgundy* and *Champaign*.

The Practice of the ſame Method, in different Parts of *Burgundy*, has raiſed ſeveral Wines out of Obſcurity into a general Eſteem; though their Names were not ſo much as known a few Years ago.

This Method relates to the Vine, the Preſs, and the Cellar.

The Culture of the Vine.

The particular Circumſtances which conſtitute the Proceſs of a Vine, are Plantation, Propagation, Pruning, Cultivation, Binding, Earthing, and Dunging.

It ſhould never be planted in ſuch ſtrong Soils as are proper for Corn; for tho' they abound in Salts and Juices, yet, as they alway harden after Rain, the leaſt ſucceeding Heat renders them impenetrable to the Action of the Air and Sun, and prevents the due Refinements of their Fluids. In conſequence of which, they are incapable of Activity and

Perfection, and the Vine either degenerates into a yellow Hue, or yields a harſh and groſs Juice. A Soil moderately thin and light, rather dry than moiſt, bending into a Declivity, and intermixed with Gravel, or ſmall Flints, is more adapted to the Vine, than the richeſt and moſt fertil Land. The Attritions which theſe ſmall Stones receive from Culture, may poſſibly cauſe them to diſcharge certain Salts, or even Particles of Fire and Sulphur, capable of infuſing an agreeable Vivacity into the Wine. But however the Fact may be, it is certain that all ſoft and light Soils impart a greater Degree of Delicacy and Flavour to their Productions; becauſe the Influence of the Action of the Air, which penetrates their Pores, without any Impediment, unfolds and diffuſes the volatile Spirits and all the fineſt Principles of Vegetation, in the moſt effectual Manner.

I am not for planting a Vine too near a River, and much leſs in the Neighbourhood of marſhy Lands; becauſe their exhaling Humidity, which ſheds itſelf over all the adjacent Soil, renders the Morning Froſts more injurious to the Leaves of the Vine; the Loſs of which is always ſucceeded by that of the Fruit.

The Vine is propagated either from Slips, or elſe from Plants that have already taken Root. The former of theſe are little Sprigs without Roots, and which are cut in Winter from Stocks of a kindly Nature, and are preſerved in Bundles in a Cellar, till the Seaſon intended for their Plantation. Towards the End of *March* theſe Bundles ſhould be ſteeped in miry Pits, for the Space of eight Days; after which they are inſerted in the Earth, not in an upright Poſition, but ſlanting a little on one Side; and three or four of them are ſet in each of the Apertures, which ought to be a Foot diſtant from one another; and all Redundancies are afterwards to be cleared away. The largeſt End of the Shoot muſt be ſunk into the Earth to a very moderate Depth; and Care ſhould always be taken to leave an Inch or two of old Wood that has had two Years Growth.

Rooted Plants are young Stocks that have grown two or three Years in a Seminary. The Soil of which ſhould be a little thinner than the Ground, into which they are to be tranſplated. This Removal is made in *November*, and the Stocks ought to be placed in the new Soil, the Moment they are taken out of their native Earth, becauſe their Delicacy will be greatly injured by the leaſt Delay. Theſe Seminaries ſhould always be inſeparable from an Eſtate in Land, ſince they are infinitely uſeful. The rooted Plants begin to be fruitful the third Year, and frequently retain their Fertility for the Space of ſixty Years.

A Vine may likewiſe be renewed, either in the whole, or in part, by the means of Layers.

This Operation is performed by bending ſuch of the fineſt Shoots, as ſhould otherwiſe be pruned off from their Stock, and by burying the old Wood in a little Trench of ſome length, while that which is young riſes above the Surface. When that Part which has been ſunk in the Soil has taken Root, the other Extremity is either permitted to remain on the Parent Stock, in order to beautify the adjacent Spot with one continued Growth; or elſe it is cut off below the Roots, and this new Stock is then taken out of the Earth, to be tranſplanted as occaſion may require.

Another Method of laying Vines is performed by cauſing the Extremity of a fine Shoot to paſs through a little Baſket, which is ſunk into the Earth for that Purpoſe. The Shoot ſo diſpoſed takes Root in the Baſket, below which it is cut off in the Month of *November*, and is then raiſed out of the Earth as ſteddily as poſſible; after which it is tranſplanted with the little Baſket, into the intended Situation. Theſe are the four Methods by which a Vine is multiplied; and we will now proceed to the Pruning Part.

This Operation ought to correſpond with the Quality of the Wood, and likewiſe of the Soil that ſupplies it with Nouriſhment. If the Earth be extremely thin, and the Wood a little weak, it is uſual to leave no more than two or three Buds at moſt on the young Wood of that Year's Growth; that the Sap, by being confined to ſo ſmall a Number of Buds, may cauſe them to emit Shoots of a moderate Strength; but if the Earth be very nutrimental, and the Stock vigorous, three or four Buds are permitted to remain on the young Wood, to weaken the Action of the Sap, and to prevent it from ſhooting out too large a Growth of new Wood.

Vine-Dreſſers, as well as Gardeners, are prepoſſeſſed with an old Opinion, that Spring is the only proper Seaſon for pruning; and yet they often act inconſiſtently with that

Perſuaſion, ſince they frequently begin to prune in *January*, in order to prevent their being embaraſſed by too many other Works, which hinder their Accompliſhment of this in due Time. But, with all their Expedition, a great Part of this Operation remains uncompleated, even when the Month of *April* is far advanced. The Sap, which began to exert its Energy in *March*, purſues its natural Courſe, and firſt ſwells in the Buds, in the Extremities of the Plant, which are the very Parts that ought to be retrenched; and then, finding the Ends of its Canals entirely laid open by Pruning, it weeps through theſe Apertures till the Heat begins to thicken it, and prevent its future Diſſipation. But the Sap would never be waſted, either in Tears or uſeleſs Buds, had Care been taken to prune the Vine immediately upon the Fall of the Leaf. This Practice is recommended by Monſieur *de la Quintinie*; to which I may add, that it has been frequently found to be ſucceſsful; and any Perſon may venture to make the Experiment on ſome ſmall part of a Vine, in order to be convinced, that thoſe Advantages of an eaſy Culture in Spring, which reſult from Pruning in Autumn, are not diſcredited by any Inconvenience whatever.

March is the Seaſon for dreſſing the Vine, after it has been pruned; and this Operation varies agreeably to the Nature of the Plants, which, among us, are of two Sorts; namely, the high Growths, which are ſuffered to ſhoot up to the Height of five or ſix Feet, in Soils of a moderate Fineneſs; and the low Growths, which are not permitted to aſcend above three Feet at moſt.

The high Vines are annually dreſſed; and once in fifteen Years they are lowered, and laid down in a Trench two Feet in Breadth, and almoſt as deep as the Stock. When this has been covered with Earth, three or four of the fineſt Shoots, which adhere to it, ſhould be extended on each Side, and diſpoſed into little Trenches ſix Inches deep, in order to furniſh as many Layers. The old Wood will reſume a new Vigour, by thus exerting itſelf in a freſh Soil; and this Operation is performed in the Month of *November*.

The Method is different with reſpect to low Wines, which are productive of the beſt Wine. They are laid in the Earth every Year, and dreſſed in ſuch a manner, that a Stock will ſhoot ſeveral Paces under-ground, and frequently as many Fathoms, in a number of Years. Care is always taken to lower the Stock with as much Equality as poſſible; and to prevent its deflecting into a Curve, which would expoſe it to the Danger of being cut, in the Culture of the enſuing Year.

When the Vines are found to be too old, they ſhould either be rooted up, or grafted. If we have Recourſe to the former Expedient, the Soil ſhould be ſuffered to reſt one Year, at leaſt, before we plant it a-new; and it with be proper to ſow it with Corn, which never fails to ſucceed, or elſe with Rye, or ſome of the *March* Grain, in order to thin the Earth, and render it more light and proportionable to the Delicacy of the young Plant, which, without this Precaution, would be choaked by too ſtrong a Nutriment.

If the old Vine ſhould ſtill ſhoot out a Growth of vigorous Wood, that is unproductive of Fruit, it will be proper to graft it, inſtead of rooting it up. All the old Wood ſhould be laid in the Earth, and no more than two or three Shoots of that Year's Growth ſhould be ſuffered to riſe above the Surface. The Graft will be more ſucceſsful on theſe, than on the old Wood, which is not eaſily opened by Inciſion, and whoſe Thickneſs no way correſponds with the Graft. The Vine is grafted in the Cleft, and the Operation reſembles that of other Trees.

The Depth, to which high Vines are laid in the Ground, makes it unneceſſary to furniſh them with new Earth; but the low Vines muſt have this Supply every twelve Years in very light Soils, and every fifteen Years in thoſe which are moſt nutrimental. Theſe Plants, however, require but a moderate Quantity of additional Earth; and it is always cuſtomary to leave the Diſtance of a Foot between each Baſket of the ſupplemental Soil; and ſhould this be too ſtrong, it may cauſe the Vines to degenerate, and deprive the future Wine of its due Fineneſs; it would likewiſe cover the Stem with an Incruſtation, thick enough to deprive it of thoſe aerial Influences as ſupply it with the proper Pabulum of Fire, and the moſt perfect Juices.

A moderate Quantity of Dung is likewiſe applied to Vines every ſeventh Year when the Soil is extremely light; and every twelfth Year, when it happens to be a little more compact. A Redundancy of this Manure would ſcorch the Body of the Plant; it would alſo ſhorten its Duration, and alter the natural Quality of the Wine. Neats-Dung is the propereſt for light Soils; but this muſt have an Intermixture of Horſe-Dung, for ſuch Lands as are ſtrong. Sheeps-Dung, when its Heat is evaporated, is very ſerviceable to Vines, when they grow yellow, provided it be employed in leſſer Quantities than the other Manures. *November* is the proper Seaſon affording the Vines this Part of their Culture, and it is deferred till the Month of *February*, when the Autumn has proved rainy, leaſt the Earth and its Manure ſhould form an injurious Glew round the Stem, to which they adhere.

The beſt Seaſon for training Vines to their Prop, is when the Flowers begin to appear. It is likewiſe cuſtomary to pare the Vine much about the ſame Time; but it is not very material whether you perform this before, or after the Plant has been faſtened to its Prop. Paring the Vine conſiſts in cutting off the Ends of the Branches, and retrenching the little Shoots, which riſe from the Bottom and Sides of the Stock. This Operation ſhould be repeated, in order to ſecure a copious Sap for the Fruits that are unfolded.

It is altogether as neceſſary to clear away, at two or three different Times, all the Weeds, which ſpring about the Stems of Vines, and which either impoveriſh, or chill the Earth But whether a Hoe or a Mattock be employed on this Occaſion, the Dreſſer ſhould always be cautious of opening the Earth about the Vine, after Rains or Froſts; for if this Operation be performed after a rainy Seaſon, it hardens the Soil, and renders it impenetrable to the Air, and conſequently cauſes ſeveral Stems to become yellow, and wither away. And if the Earth be ſtirred after Hails or Froſts, it is expoſed to ſuch a fatal Chillneſs, as will, at leaſt, retard the Proceſs of Vegetation for a conſiderable Time.

The Vine has three dangerous Enemies, from whoſe Ravages it is difficult to preſerve it.

Inſects injurious to the Vine.

The firſt of theſe is a ſmall Beetle, that reſembles a *May*-Bug, in Shape and Colour, but is much inferior to it in Size. This Inſect continues in the Earth during the Winter Seaſon, and faſtens itſelf to the Stems of young Vines in particular; gnaws their moſt tender Roots, and frequently deſtroys them. It makes its Appearance in the Month of *May*, and after it has fixed itſelf on the green Foliage, it preys on their Subſtance, and pierces the Fruit-Buds and the young Shoots, which often proves deſtructive to all the new Wood. But this Devaſtation may be prevented, in a great meaſure, by ſowing a good Quantity of Beans about the Vine; which the Animal will quit for the new Growth of Leaves, and theſe may eaſily be multiplied in a ſhort time. Theſe Leaves, with the Breed of Inſects that reſt upon them, may afterwards be advantageouſly removed, and burnt around the Stem of the Vine; by which means, another Diſaſter, more prejudicial than the former, may be ſeaſonably prevented. Theſe Animals pierce the Cluſters when they are ripe, in order to inject their Eggs into the Berries; in conſequence of which, Legions of Worms will be produced, to the Deſtruction of the Grapes, and the total Fruſtration of the approaching Vintage. The Sun draws all the Juice from the penetrated Grapes, and ſoon reduces them to Powder. The Worms, when they are ſatiated with their Food, ſeek a proper Retreat, for the Accompliſhment of their Transformation into *Aurelias*, and afterwards into Beetles. If they happen to diſcover a Heap of Compoſt, they chuſe it for their Manſion; and ſeveral Perſons place a quantity of it about the Stocks of their Vines. This Manure is the Rendezvous of theſe, and a Variety of other Inſects; and if Care be taken to burn it, at the Cloſe of Winter, all theſe noxious Animals will be effectually deſtroyed, and the Aſhes are almoſt as ſerviceable as the Manure itſelf.

There is likewiſe another ſmall Beetle, ſomething leſs than a common Fly, and covered with a green Shell, whoſe Surface glitters with the brighteſt Gold. This Animal is furniſhed with a very long and hard Trunk, indented into ſeveral Saws, which prove very prejudicial to the Grapes, and likewiſe to the tender Leaves; which the Creature rolls around its Body, and lines them with a ſort of Down for the Reception of its Eggs. In the Winter-Seaſon, it either retires into the Earth, or lodges itſelf in a Heap of Compoſt, where it continues buried in Sleep. The Vine-Dreſſers are induſtrious to find out theſe contorted Leaves, which enfold the Eggs, and they burn them at the Foot of the Vine.

'Tis cuſtomary to employ the Hours of deſcending Dews, or the Cool of the Morning, in deſtroying the Snails, that conceal themſelves during the Heat of the Day; and as theſe Animals are an Ingredient in the Ragoûts of *Languedoc*, the Inhabitants of that Province are very ſollicitous to diſcover them. It would be in vain for one induſtrious Perſon to attempt the Extermination of theſe Inſects from his Vineyard; the Inhabitants of the whole Diſtrict ought to concur with him in that Employment, or he will otherwiſe be too much fatigued, in deſtroying a hundred Enemies in one Vine, while two thouſand are marching to invade the neighbouring Plants.

When the Cultivation has been properly conducted, and a favourable Summer has co-operated with the Labours of the Vine-Dreſſer, the Grapes will, at laſt, acquire their compleat Maturity, and it will then be neceſſary to prepare for the Vintage. The Fats are carefully cleaned, and the Wine-Preſs, with all its Appendage of Veſſels, have their proper Diſpoſition aſſigned them, for the enſuing Work. But the Manner of making Wine, and the Methods by which it is duly ordered, ſhall be reſerved for our next Walk; and we will conclude this with a Turn or two in the Vineyard, where you ſhall be preſented with a View of moſt of the Particulars I have related.

W I N E.

DIALOGUE XIV.

The COUNT. *The* COUNTESS.
The PRIOR. *The* CHEVALIER.

Counteſs. OUR Preparations for the Vintage are all compleated, and the Vintagers are flocking towards us, to offer their Services on this Occaſion. What Commands has your Lordſhip for them at preſent?

Count. The Quality of the Wine depends on the due Performance of their ſeveral Functions. I inform them, that they muſt bring in the Grapes, at three different Gatherings; in the firſt of which, they are to chuſe thoſe Bunches that are moſt ripe, and have the feweſt, as well as the fineſt Grapes; and they muſt be careful to clear away all the Berries that are green, rotten, or ſcorched, together with ſuch as have been pierced by Inſects. I likewiſe direct my People to cut the Grapes very ſhort; becauſe the Stalks are bitter, and vitiate the Wine with a Flavour of the Wood, in proportion to their Length.

The ſecond Gathering muſt be confined to the large thick Cluſters, that are not ſo ripe as the others; and thoſe which are green, withered, or rotten, ſhould be gathered laſt. I conſign theſe three Gatherings to as many Preſſings, whoſe Difference you may eaſily comprehend.

This firſt Labour, which is of the utmoſt Importance, may be compleated by another Method. I have Vines that vary in their Qualities. Some are planted in a very light and ſtony Soil, and they yield a bright and fragrant Wine; others are placed in a more nouriſhing Tract of Land, and they produce a Wine of a greater Body. If I have an Inclination to unite theſe good Qualities, in the ſame Wine, and to meliorate the one, by an Intermixture of the other, I can accompliſh my Deſign, either in the Vineyard, by blending theſe different Grapes together; or elſe in the Cellar, by mixing the ſeveral Wines I have preſſed; but if I neglect to make this Intermixture, by cutting one Species of Grapes with the other, I hazard the Loſs of all my Vintage. When the Wines are once made, it will be difficult to mix them to any Degree of Perfection; the weakeſt will change its Complexion, and communicates its Defects to the other, inſtead of being corrected by the good Qualities of the aſſociated Juices; and one of its leaſt Imperfections, tho' far from being inconſiderable, will be a diſagreeable cloudy Tinge, accompanied with a Sediment, which will always tarniſh the Beauty of the proper Colour, and diveſt the Wine of its fine Flavour and Tranſparency. But this Effect will be prevented, if I intermix the beſt Grapes of one Vine with the moſt perfect Productions of another. The ſeaſonable Combination of theſe different Fruits, will produce an exquiſite Liquor, that will have all the Advantages of a ſufficient Body, a Delicacy of Flavour, a Fragrancy of Scent, and a Livelineſs of Colour, and which may be kept for ſeveral Years, without the leaſt Alteration. Theſe Obſervartions of mine have been juſtified by a long Experience; and it was the Knowledge of thoſe Effects that reſult from intermixing the Grapes of three or four Vines of different Qualities, which improved the celebrated Wines of *Sillery*, *Ai*, and *Hautvilliers*, to the Perfection they have now acquired; and indeed they ſeem to comprehend all the Excellencies that can poſſibly unite, to regale the Palate.

Father *Perignon*, a *Benedictine* of *Hautvilliers*, on the *Marne*, was the firſt who made any ſucceſsful Attempt to intermix the Grapes of different Vines in this manner; and the Wine of *Perignon*, or *Hautvilliers*, bore the greateſt

Eſtimation among us, till the Practice of this Method became more extenſive.

Chevalier. As I was Yeſterday reading *Boileau's Feaſt*, I found all the Names your Lordſhip has mentioned, in the explanatory Account of the *Hilly Order*, which, as the Commentator obſerves, was a Society of Men of Pleaſure, who were divided in their Opinions, with reſpect to the Merit of the ſeveral Vines that grow on the Hills adjacent to *Rheims*. I was then deſirous of conſulting the Map for the Name of *Perignon*, *Sillery*, *Hautvilliers*, *Ai*, *Taſſi*, *Verzenai*, and *St. Thieri*, which are introduced in the Notes: But I loſt my Labour in looking for the Name of *Perignon*.

Counteſs. The Author of thoſe Notes has aſcribed the Name of a Man to a Mountain; but this is a trifling Miſtake; and, if you pleaſe, Sir, we will return to our Vintage. I can now comprehend the Reaſon why the Wines, made by country People, are ſo inferior to thoſe we drink at the Table of Gentlemen, and rich Citizens, tho' they are both produced from the ſame Vines, and the ſame Grapes. The Peaſant, who poſſeſſes only an Acre or two of Land, is unable to make proper Selections and Intermixtures of Fruit; he makes but one Preſſing, or he thinks he ſhall reform the bad Wine, by blending it with the good; while he in reality injures the good, by intermixing it with the bad; but the Proprietor of a large Vineyard has an Opportunity of conſidering the different Qualities of his Vines, and can form ſuch an Intermixture as will bring his Wine into Reputation.

Count. My remarks on the Choice and Aſſortment of different Grapes, are equally applicable to grey and red Wines.

Chevalier. Your Lordſhip ſpeaks of the Colour of Wine, as if we were capable of forming it in what manner we pleaſe. Can a white Grape be made to afford us a Wine of a different Tincture; And is not red Wine the conſtant Product of a black Grape?

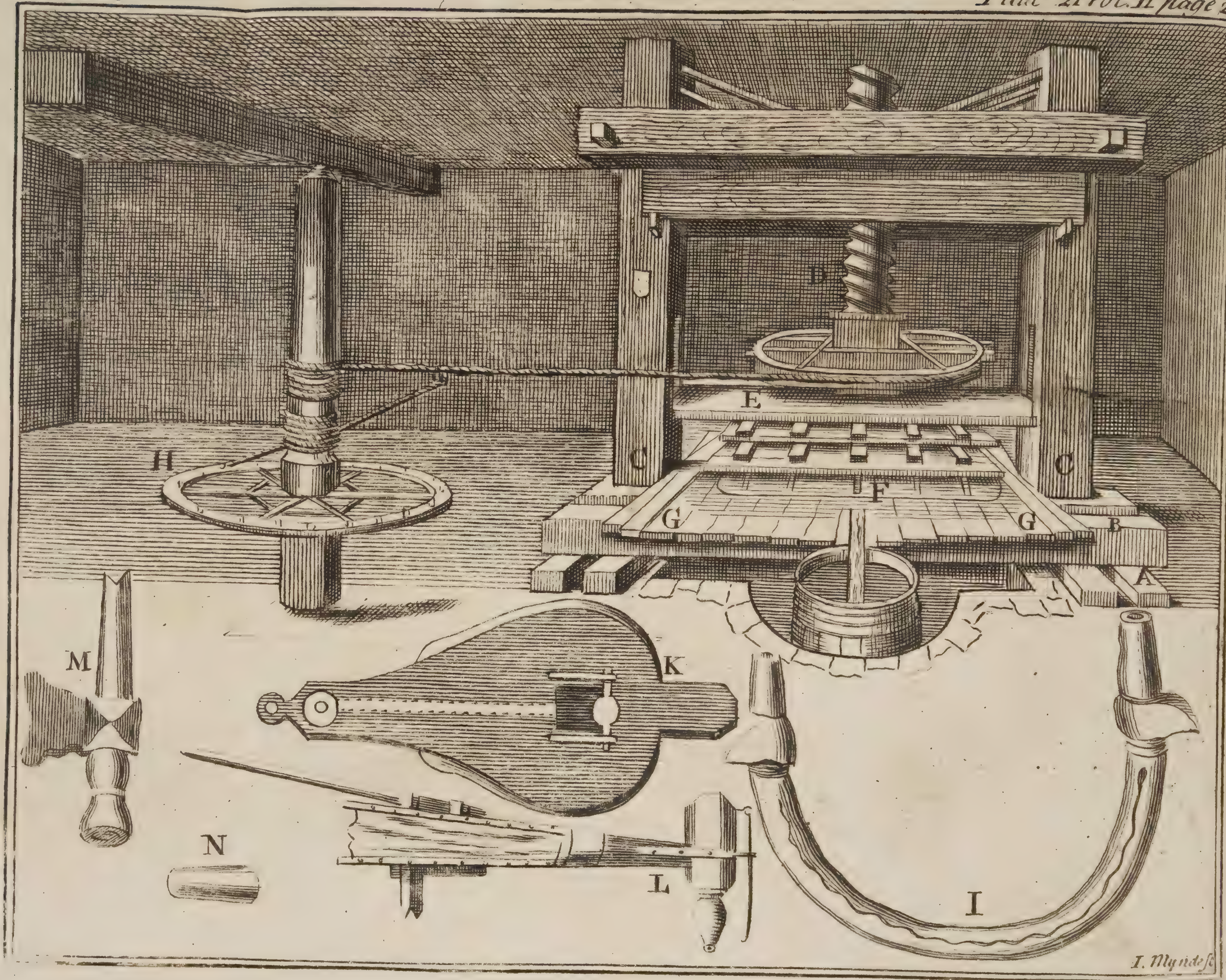
Count. White Wine is, undoubtedly, the natural Juice of a white Grape; but its Strength and other Qualities are generally very imperfect; it is likewiſe apt to grow yellow, and it degenerates before the next Return of Summer. Theſe white Wines grow out of Repute at preſent, and are only uſeful in ſome medicinal Preſcriptions; but the grey Wine, which has ſo bright an Eye, and reſembles the Complexion of Cryſtal, is produced by the blackeſt Grapes. And its Whiteneſs can never be ſo well promoted, as when all the Stocks of white Grapes are rooted up. It was formerly very difficult to preſerve the Wine of *Ai* longer than one Year. When the Juice of the white Grapes, whoſe Quantity was very great in that Vineyard, began to aſſume a yellow Hue, it became predominant, and created a Change in all the Wine; but ever ſince the white Grapes have been diſuſed in the Wines of *Champaign*; that which grows on the Mountains of *Rheims*, will laſt ſeven or eight Years, and the *Marne* Wine may be eaſily kept for the Space of four or five. And if the ſame Precautions are uſed, with reſpect to the Wines of *Burgundy*, they will not begin to degenerate in the third Year, and frequently in the ſecond, as has often been experienced.

Chevalier. What Methods are taken to make the black Grapes, which afford a red Wine in *Burgundy*, produce a Wine as white as Water in *Champaign?*

Count. The Wine of a black Grape may be tinged with any Colour we think proper; thoſe, who deſire to have it perfectly white, have Recourſe to the following Method. The People, employed in the Vintage, begin their Labours at an early Hour in the Morning; and when they have ſelected the fineſt Grapes, they lay them gently in their Baſkets, in order to be carried out of the Vineyard; or they place them in large Panniers, without preſſing them in the leaſt, or wiping off the dewy Moiſture, and the azure Dye that cover them. Dews and exhaling Miſts greatly contribute to the Whiteneſs of the Wine.

'Tis cuſtomary to cover the Baſkets with wet Cloths, in a hot Sunſhine; becauſe the Liquor will be apt to aſſume a red Tincture, if the Grapes ſhould happen to be heated. Theſe Baſkets are then placed upon the Backs of ſuch Animals as are of a gentle Nature, and carry their Burden with an eaſy Motion to the Cellar, where the Grapes continue covered, in a cool Air. When the Warmth of the Sun proves moderate, the Labours of the Vintage are not diſcontinued till Eleven in the Morning; but a glowing Heat makes it neceſſary for them to ceaſe at Nine. When the the Baſkets have been conveyed to the Houſe; and you will natually imagine

The Common Preſs



I. Mynde ſc.

imagine it ought to be near the Vineyard, that the Grapes may neither burſt, nor be heated in the Carriage; the next Employment is to throw them into the Preſs, whoſe Uſe and Structure you ſhall have an Opportunity of ſeeing, when we have finiſhed our Walk.

When the firſt preſſing has been diſpatched with Expedition, the Grapes that were ſcattered from the Heap are gathered up, and the Preſs is worked a-new. When this Operation is over, the Extremities of the Maſs are ſquared off by a large cutting Peel, and are then thrown upon the other Fruit, in order to receive the third Preſſing; which, from this Circumſtance, is called the firſt Cutting. The large Beams of the Preſs are likewiſe lowered ſeveral times; and theſe Operations are called the ſecond, third, fourth, and fifth Cuttings.

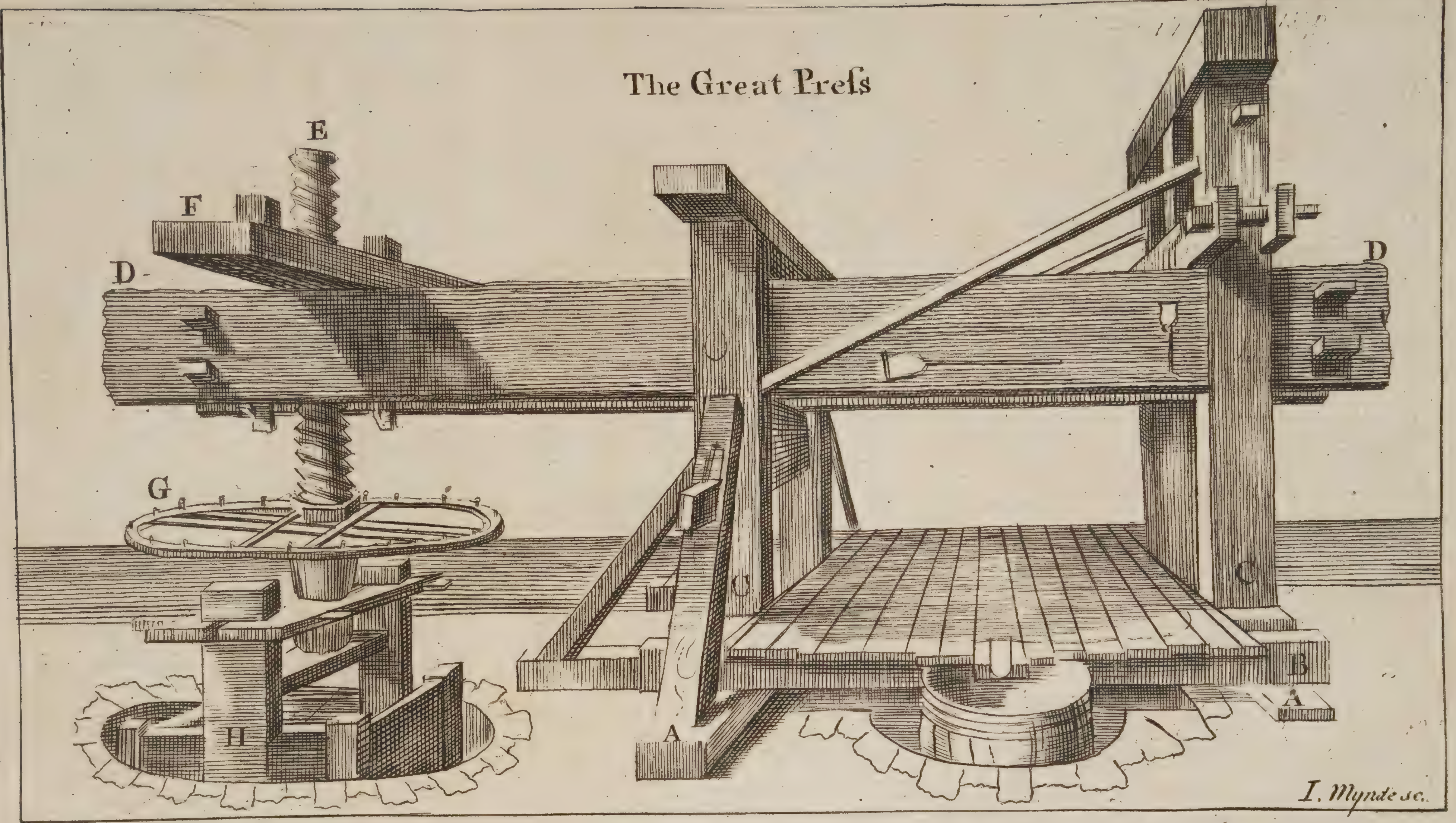
The Wine of the firſt Preſſing is kept apart from the reſt, when the Fruit happens to be very ripe, and the Seaſon extremely hot; becauſe it then guſhes out in a copious Flow, and would be apt to redden, were it intermixed with the Liquor of the ſecond Preſſing; but this Mixture is uſeful, and ſometimes neceſſary in a Year of moderate Heat, and when the firſt Preſſing has not afforded a large Quantity of Juice. The Wine of the firſt Cut may be ſometimes blended with that of the two firſt Preſſings; but ſeveral Perſons of great Judgment decline this hazardous Management, leſt it ſhould be injurious to the Tranſparency of the firſt Wines. The Wine that is produced after any of the Cuttings, is excellently qualified to form a perfect Liquor, and may be intermixed with Red Wines, if they happen to be made apart

The Wines of the ſeveral Cuttings are always gradually reddened, becauſe the Preſs begins to operate more effectually on the Skin which enfolds the Berry, and the Particles, which are then diſengaged from it, impart the red Tincture to the Wine. The Heat of the Sun, and the Shocks of the Carriages are ſometimes ſo violent, and produce ſuch ſtrong Effects or the exterior Coat of the Grapes, that the Fluids contained in that Coat, and which are then in Motion, mix themſelves with the Juice of the Pulp, at the firſt Preſſing; in conſequence of which, the Extraction of a Wine perfectly white is rendered impracticable, and its Colour will reſemble the Eye of a Partridge, or perhaps ſome deeper Hue. The Quality of the Wine is ſtill th ſame, but it muſt be either entirely White or Red, in orde to prove agreeable to the Taſte and Mode which nov prevail.

The Wine of the ſixth Preſſing is mixed with tha which is extracted from the Refuſe of the Grapes, for Uſe of leſs conſequence. The Preſſes of *Champaign* ſqueez the Fruit with ſo much Violence, that the Marc become as hard as a Stone. An ill-flavoured Brandy is drawn fron this; but it proves very effectual in aſſuaging the Anguiſ of Wounds or Bruiſes, and is likewiſe uſeful on ſevera other Occaſions.

We will now proceed to Red Wines, whoſe deep Complexion, as we are ſenſible by Experience, reſults from th particular Degree to which the Juice of the Skins is intermixed with that of the Pulp. This ſtrong Tincture i imparted to the Wine by trampling the Grapes, an throwing them into the Fat before they have been preſſe The Heat and Spirits which operate in the Fat, ar ſtrongly impelled againſt the Coats of the Berries that ar burſt by being trodden; and this red Subſtance, lodged i the Texture of the Skins, is ſeparated from them by th Heat which penetrates every Part, and is then intermixe with the Body of the Liquor, in proportion to its Continuance in the Fat; and if we ſuffer it to remain there fo a conſiderable Time, we may be certain of obtaining a Win that will be imperfectly red. But as the acid and bitte Fluid of the Stalks is likewiſe extracted by the ſam Heat, it is conſequently blended with the other Juice, an communicates to it either an acid, or a bitter Flavour which renders the Wine inſupportable, and eſpecially i cold Years.

There are two Expedients for the Prevention of this Inconvenience. One of which is, to carry on the Proceſs c the Vintage in the hotteſt Sunſhine, when the Heat wi produce better Effects on the outward Coats of the Grapes than could be imparted to them by the Fat in ſeveral Days and when they are immediately thrown into that Veſſe where they very frequently riſe to the Edge of it, in le than four and twenty Hours, there is no Danger of thei contracting the Flavour of their Skins.



The Great Preſs

I. Mynde sc.

A.B. *The Base and other Supporters*
C.C. *The Cheeks, or Side Beams*
D. *Great Beams, two in Number, if such can be got as are Strong enough, but there are generally four, or even Six of them.*
E. *The Screw.*
F. *The Nut of the Preſs.*
G. *The Wheel, wch by ye Aid of five or Six Men turns ye Screw*

H. *The Cage which is an Assemblage of several strong peices of Timber formed into a Square, and lined with Masonry within. This Cage is ten Foot long and four and an half broad on each Side. It may either be raised out of or sunk into the pit of Maſonry Work from whence it is exhibited as aſcending in the plate, and it weighs above three thouſand Pounds, and being ſuſpended in the Manner in which it is Repreſented at the end, forms, in a Conjunction with the Screw a Lever of an Immenſe Force, and makes, at one Vat or Stowage Twenty five Pieces of Wine in leſs than four Hours Time.*

When the Seaſon proves cold, and the Vintage cannot be tranſacted in a favourable Sunſhine, it is cuſtomary to employ wooden Forks that have three Prongs, and are as many Feet in Length; and when they are worked round the Tuns, into which the preſſed Grapes have been diſpoſed, they faſten upon the Skins that have diſcharged their Pulp; and when theſe are drawn out of the Tun, they are mixed with the other Refuſe, that the little Quantity of Juice which remains in the extreme Part of the Stalk of each Berry may not be loſt. The Grapes are then thrown into the Fat, and they remain uninjured for ſeveral Days, and aſſume their proper Colour, without contracting the bitter Flavour of the Skins that have been cleared away for the moſt part. I ſay the moſt part, becauſe it will be neceſſary to let ſome of them remain, in order to bind the Berries, which, without this Precaution, would be ſcattered all about the Preſs, after the Extraction of the Juice.

The Wine that has been drawn out of the Fat is afterward intermixed with the Liquor produced by the two or three firſt Preſſings; but as the Wine which is afforded by the following Preſſings, is inferior to the former in its Qualities, it will be proper to diſpoſe it apart.

The Wine is now made, and diſtributed into Veſſels, which are marked according to the Order of the firſt, ſecond, and third Cuvée, whether White or Red; and when it has been ſuffered to ferment in the Air, for ſome Days, the Number of which is proportioned to the Maturity of the Grapes, and the Temperance of the Seaſon; the Veſſels are ſtopped in ſuch a gentle Manner, as enables the Wine to exhale its moſt fiery Particles for ſome Time. After which it is lodged, during the Winter, in an upper Cellar, from whence it is removed into lower Vaults, at the Return of the firſt Heats, and is ſuffered to continue there no longer than the Cloſe of Autumn.

Wine of the firſt Year is uſually lodged in new Veſſels, from whence it ſhould always be transfuſed into ſome other Veſſel that has contained Wine of the ſame Species; and this is an eſſential Circumſtance with reſpect to White-Wine, which would eaſily be ſtained, by paſſing into a Veſſel, that has formerly been appropriated to Wine of a different Nature; and it will be apt to contract a Flavour of the Wood if we pour it into a Veſſel that has never bee uſed before.

It has been a prevailing Opinion, though without th leaſt Foundation, that Wine is beſt preſerved on its Lees for it is certain, that nothing can be more injurious to i than Lees and Air. If the *Champenois* transfuſe thei Wine into different Veſſels twelve Times in four Year they always chuſe ſuch as are perfectly clean, with View, undoubtedly, to prevent their Wine from growin vapid; and they uſually burn a little Match of Sulphur half an Inch in Length and Breadth, in the Veſſel the empty, that it may be filled with the Odour, in proportion to the Evacuation, and may likewiſe receive a Stean of Spirits capable of promoting the natural Fire, and brigh Complexion of the Liquor.

As the Goodneſs and Duration of Wine depends, in peculiar Manner, on the Precautions that are taken to refine it from its Lees, much Attention has been employed t find out proper Expedients for its Clarification. The fir of theſe conſiſts in drawing off the Wine, the ſecond i glewing it.

The former of theſe Operations is performed by drawing off the Wine from its Lees into another clean Veſſe by the Aid of a leathern Pipe and a Pair of Bellows. Tube of Wood is faſtened on one of the Extremities of th Pipe, and this is inſerted into the lower Part of the Veſſe that is intended to be filled; the other Extremity ends i another Tube of the ſame Nature, and is fixed in a larg Fountain, at the Bottom of the Veſſel that is to be emptie When the Fountain is opened, the Wine flows out of on Veſſel into another, till Surfaces of the Liquor in bot have acquired an equal Level; after which, the Nozzle o a large Bellows is inſerted into the upper Vent of th Veſſel which is to be emptied, and the Air, which is the forced into it by the repeated Efforts of the Bellows, creates an equal Preſſure on the Surface of the Wine, and impels it into the other Veſſel, without occaſioning the lea Diſorder.

The Operation of glewing the Wine is performed b pouring into each Veſſel a Pint of Liquor, wherein Lump of Fiſh-Glew, ſixty or ſeventy Grains in Weigh has been ſteeped and diluted for the ſpace of four Day

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This glewy Subſtance, which the *Dutch* import among us from *Archangel*, ought to be very clear and tranſparent. We uſually beat it with a wooden Hammer, in order to break it into ſhivers, and that it may diſſolve, with leſs Difficulty, in a little Wine and River-Water, which laſt is more penetrating than Spring-Water. A very ſmall Quantity of Wine is added from time to time, and the Whole is frequently worked about with the Hand; after which it is paſſed through a Linen Strainer, of a moderate Fineneſs; and they then pour as much of this Intermixture as will fill three large Glaſſes, or a Pint, into the Caſk, and draw off two or three Bottles of the Liquor. This Glew is blended with the Wine, by being ſtirred with a bent Stick, which cauſes the vicious Subſtance to diffuſe itſelf over the Surface like a Net, and when a moderate Quantity of Air has been admitted into the Caſk through a Vent, the Glew will ſink to the Bottom, and draw along with it the ſuperfluous Oil, and generally the whole Maſs of Impurities that float in the Veſſel, and inſtead of vitiating the Wine, in any Inſtance whatever, it gives all its good Qualities their full Play.

Wines are drawn off from their Lees in ſome of the firſt Days of *January*, or when the Froſt has begun to clarify them in a natural Manner. The drawing off is repeated at the End of fifteen Days; and if the Wines are grey, they ought to be glewed eight Days before they are bottled.

If the Wine be drawn off towards the End of *March*, when the Sap begins to riſe in the Vine, it will froth to ſuch a Degree, as to whiten like Milk, to the very Bottom of the Glaſs, the Moment it is poured out. Wine will ſometimes acquire this Quality, if it be drawn off during the Aſcent of the Sap in *Auguſt*; which makes it evident, that the Froth is occaſioned by the Operation of the Air and Sap, which then act with Vigour in the Wood of the Vine, and likewiſe in the Liquor it produced. This violent Ebullition, which is ſo agreeable to ſome Perſons, is thought, by *Connoiſſeurs*, to be inconſiſtent with the Goodneſs of the Wine, ſince the greeneſt may be made to whiten into a Froth; and the moſt perfect Wines ſeldom diſcover this Quality.

The Month of *March* is the uſual Seaſon for glewing the moſt tender Wines, ſuch as thoſe of *Ai*, *Epernai*, *Hautvil-*

liers, and *Pieri*, whoſe chief Conſumption is in *France*, but this Operation ſhould not be performed on ſuch ſtrong Wines as thoſe of *Sillery*, *Verzenai*, and other Mountain Wines of *Rheims*, till they are twelve Months old; at which Time they are capable of ſupporting themſelves for ſeveral Years. Theſe Wines grace the Tables of *London*, *Amſterdam*, *Copenhagen*, and of all the *North*. We are likewiſe aſſured that they have paſſed the Line with Impunity; but I am ſomething incredulous as to that Particular.

When theſe Wines are bottled off, before they have exhaled their impetuous Particles, they burſt a Number of Bottles, and are leſs perfect in their Qualities. The proper Method of bottling Wine conſiſts in leaving the Space of a Finger's Breadth between the Cork and the Liquor, and in binding the Cork down with Packthread; it will alſo be proper to ſeal the Mouths of the Bottles with Wax, to prevent Miſtakes and Impoſitions. The Bottles ſhould likewiſe be inclined on one Side; becauſe, if they are placed in an upright Poſition, the Corks will grow dry in a few Months, for want of Moiſture, and ſhrink from their firſt Dimenſions. In conſequence of which, a Paſſage will be opened to the external Air, which will then impart an Acidity to the Wine, and form a white Flower on the Surface, which will be an Evidence of its Corruption.

Red Wines are ſeldom glewed, and bottled, eſpecially during the firſt Year; the huſky Particles, from which the Wine receives its red Tincture, are ſeparated from Month to Month, and the heavieſt are ſoon precipitated to the Bottom of the Caſk. If you glew and bottle Red Wine, it will appear perfectly fine; but the firſt Motion of the Bottle, when two Months are expired, or the Admiſſion of the external Air, when you pour out the two firſt Glaſſes, will immediately raiſe a Cloud from the Bottom, which will deprive the Wine of its bright Colour and agreeable Flavour.

No Red Wine ſhould therefore be bottled, but ſuch as is intended to be drank in two Months; otherwiſe the whole Stock will either be loſt, or conſiderably changed in the third Month, and oftentimes ſooner; either becauſe the Bottom of the Bottle is covered with a thick Sediment, which obliges us to rack off the Wine with Loſs; or becauſe Red Wine of the firſt Year contracts a diſagreeable Tartneſs in the Bottle; or, laſtly, becauſe an oily Subſtance is engendered in the Wine, which is a Defect that is uſually remedied by ſhaking the Bottle; but it may be cured more effectually in the Caſk by rolling it about, and by glewing the Wine, or elſe by keeping it a whole Year.

When the Red Wine has precipitated its Sediment, at the End of about twelve Months it may be ſafely drawn off into Bottles, where it will ſupport itſelf much better than in the Caſk, becauſe the Pores of this are not ſo contracted as thoſe of the Glaſs. The glewing would not be injurious to it, though it would certainly be unneceſſary, after the Wine has clarified itſelf by its own Efforts.

While the Liquor continues in the Caſk, its Diſſipations ought to be recruited every Month with the beſt Wine in the Cellar, and, if poſſible, with that of the ſame Cuvée. As the Wood that contains it is very porous, the Wine will never comport with any neighbouring Odours, ſuch as thoſe of Cheeſe, Cyder, Beer, and Perry; for which Reaſon the Cellar ought to be accommodated as much as poſſible to the Genius of the Wine.

Theſe, my dear *Chevalier*, are the beſt Methods that can be obſerved in the Making and Management of Wine, and their Efficacy is juſtified by the Experience of fifty Years.

Prior. I am ſurprized when I conſider to what Length the Induſtry of a laborious People may be extended. The *Champenois* have experienced the reverſe of that Event, which befel the Inhabitants of the *Campania*. The *Falern*, the *Maſſic*, and *Formian* Wines, which *Horace* has ſo frequently celebrated as the moſt perfect Productions of *Italy*, were doomed to a ſad Declenſion within a hundred Years after his Death, by the Miſconduct of the Inhabitants, who neglected the right Method of making them, and thought a Profuſion of thoſe Liquors preferable to their Perfection*. And though they once were capable of being preſerved a great Number of Years, they now ſhare the Fate of moſt *Italian* Wines, which are ſo extremely weak, as to be rendered uſeleſs at the return of the hot Seaſon, unleſs they are boiled, in order to ſupport them thro' the enſuing Year†. But the Inhabitants of *Champaign* have, by a Series of Induſtry, and the Regularity of their Methods, not only given a Reputation to their Wines, which were lately ſo little known, but have likewiſe acquired the Art of Preſerving their delicate Flavour, much longer than is practicable with the Wines of *Burgundy* and *Guienne*. This is a recent Fact, and it ought to create a generous Emulation in the Proprietors of other Vineyards.

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* Hiſt Nat. lib. xiv. c. 6.

† Andreas Baccius de Vinis Italiæ.

Count. I foreſaw this Event, and expreſſed my Sentiments of it in a little *Memorandum*, which I formerly made on the Progreſs of *Champaign* Wine, when I paſſed through that Province. When *Philip* of *Valois* was inaugurated, in the Year 1328, the Inhabitants of *Rheims* furniſhed, for the Entertainment they prepared for the King and his whole Court, three hundred Pieces of Wine, partly of the Growth of *Beaune* and St. *Pourcain*, and partly of *Rheims*. Each two Pieces of this laſt Growth coſt from ſix to ten Livres. The Wine of St. *Pourcain* amounted to twelve Livres each Caſk, and two Pieces of that of *Beaune* came to twenty-eight Livres.

Prior. The Wine of *Rheims* muſt certainly have been but little known at that Time, or elſe it was extremely ill made, ſince its Price was ſo inferior to that of *Burgundy*.

Count. In the Reign of *Francis* I, and *Henry* II, the Wine of *Rheims* was generally eſteemed, and there is a Tradition that *Charles* V, *Francis* I, *Henry* VIII, and *Leo* X, had each of them a Commiſſioner who reſided at *Ai*, to acquire timely Intelligence of the beſt Growths.

At the Coronation of *Francis* II *, that Monarch received a Preſent of *Burgundy* Wine, which was ſold for twenty Livres the two Pieces, at *Rheims*; and likewiſe of *Rheim* Wine, that coſt from fourteen to ſeventeen and nineteen Livres the two Pieces; ſo that this latter Wine was dearer at that Time than *Burgundy*. When *Charles* IX, was crowned †, the *Rheims* Wine that was preſented to him co twenty-eight and thirty Livres the two Pieces; and th Wine of *Lyonnois* was dearer than that of *Rheims*.

At the Inauguration of *Henry* III ‡, they only preſented the Wines of *Rheims*, from fifty-four to ſeventy-five Livre the two Pieces; and thoſe were the only Growths that wer drank at the Coronation of *Lewis* XIII, and they coſt

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* September 18, 1559.

† May 15, 1561.

‡ Feb. 13, 1571.

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hundred and ſeventy-five Livres the two Pieces; but they were advanced to ſuch Perfection when *Lewis* XIV was crowned *, that all the great Lords were deſirous of drinking it; and it has been conſiderably improved ſince that Time, particularly with reſpect to its Duration.

Prior. This Wine is at laſt become the only Growth in *France*, that can be ranked in Competition with *Burgundy.*

Count. If we will be determined by the fineſt Palates, the *Champaign* Wine is much preferable to *Burgundy.*

Prior. It is a ſufficient Honour for *Champaign* to be advanced to the ſame Degree of Eſtimation with *Burgundy*; and it may very well diſpenſe with the Priority. I always thought *Burgundy* had ſome Similitude to a ſolid Underſtanding, which affects us with laſting Impreſſions; and that *Champaign* reſembled a lively Wit, which glitters more upon the Imagination, but is not always ſerviceable to its Poſſeſſor.

Count. You will pardon me, Sir, if I cannot altogether approve of your Compariſon. If you had made the Froth of ſome *Champaign* Wines, and the Sallies of a ſprightly Wit, your Parallel, I ſhould have thought it unexceptionable; and ſeveral pleaſant Remarks might be made on this Sprightlineſs without Solidity. But ſuch a *Champaign* Wine as that of *Sillery* unites all the Vigour of *Burgundy* with an agreeable Flavour peculiar to itſelf. Good Wine may be conſidered in the ſame Light with true Wit, whoſe utmoſt Perfection reſults from Solidity, in Conjunction with Delicacy.

Prior. I prefer uſeful Qualities to thoſe that are merely agereable. *Burgundy* ſeems to be a more ſalutary Wine than *Champaign*, and will always be triumphant for that Reaſon. Its Colour alone declares it to be a Wine of a good Body; and, I muſt confeſs, I am apt to be diffident of all dazzling Appearances.

Count. Moſt People are very willing to believe that this deep Colour, which is ſo much eſteemed in *Burgundy* Wines, is an Indication of their Wholeſomeneſs; but it is certain that this Complexion is likewiſe obſervable in the groſſeſt Wines, and it reſults from an Intermixture of the huſky Parts of the Grape. Wine will loſe its Fineneſs, in Proportion to the Quantity of thoſe Particles that are blended with it, and will be leſs qualified for Digeſtion. The Gout therefore, and the Stone, with which the Inhabitants of Wine-Countries are ſo frequently afflicted, are Diſtempers hardly known either at *Rheims*, or on the Banks of the *Marne*, where the Wines are very moderately coloured.

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* Feb. 1610.

Let us form a Judgment of Foods and Liquors, agreeably to the plain Laws of Nature. You yourſelf, Sir, obſerved very lately, that the Deity, inſtead of ſubjecting us to the Uncertainty of Examinations, has enabled us to judge of the Excellence of any particular Nouriſhment, by the Impreſſions of Senſe. This Rule, which is never fallacious, when our Diet is ſimple, and free from Intermixtures, decides the Pre-eminence in Favour of the Wine of *Rheims*, and its Scent and Flavour alone are Intimations of its enjoying the moſt perfect Qualities. But I have another Remark to offer, which is, that Wines may be made almoſt as white in *Burgundy*, as they are in *Champaign*, tho' not ſo good; and, on the other hand, the *Champenois* preſs a Wine as red as the *Burgundy* Growth, and the Merchants ſell it, either as the beſt Species of *Burgundy*, to the Wine-Conners, who are the firſt People that are deceived in it or as red *Champaign*, to the *Connoiſſeurs*, who prefer it t any other Wine. In a word, if we may judge of th Merit of Wines by the Price, at which they are ſold by th Merchant, we ſhall certainly aſſign the Preference to *Champaign*, ſince the fineſt Species of this Wine is ſold in th Vaults of *Sillery* and *Epernai*, for ſix, ſeven, or eight hundred Livres; when the ſame Quantity of the beſt *Burgund* may be purchaſed for three hundred.

Counteſs. Let me intreat you, Gentlemen, to leave thi Controverſy undecided; for we have no Judges, who ar qualified to pronounce a definitive Sentence; but if ther were really any ſuch, it would be prudent in them to l this Debate always ſubſiſt. The equal Pretenſions th are formed by theſe two great Provinces, promote an Em lation which is advantageous to us. The Partiſans for *Burgundy* and *Champaign* form two Factions in the State; bu their Conteſts are very entertaining, and their Encounte not at all dangerous. It is very uſual to ſee the Zealots

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one Party maintaining a Correſpondence with thoſe of the other; they frequently aſſociate together without any Reſerve, and thoſe who were Advocates for *Burgundy*, at the Beginning of the Entertainment, are generally ſo reconciled to *Champaign*, before the Appearance of the Deſert.

But let me adviſe you, Gentlemen, not to be inchanted with the Attractions of Wine, as to treat other Liquors with Partiality, tho' they may happen to be inferior in Merit. This Part of the Country has, for ſome Years paſt, produced a Cyder, which is comparable to that of *Rouen*. It is indeed my favourite Vintage, and I will acquaint you with the Particulars of it, if the Prior will firſt be pleaſed to deſcribe to us the Manner of making Beer.

Prior The neceſſary Ingredients of this Liquor are Water, Barley, Hops, and Yeaſt. The Water ought to be light and penetrating; and theſe Qualities are indicated by its Facility of being worked into a ſtrong Foam by Soap. If it froths but little, we may conclude it to be harſh, and impregnated with Principles that are foreign to its Nature. The Barley ought to be ground after it has ſprouted; and this may be effected by ſteeping it four and twenty Hours in Water. After which, it is carried to the Cellar, which is called the ſprouting Vault, where it remains till each particular Grain has ſhot forth to the Length of four or five twelfths of an Inch. It is then dried in a covered Loft, and upon a Floor that has ſeveral Interſtices in it, which ſhould be covered with large Horſe-hair Cloths. The Barley is ſpread over theſe, and gradually dried by a Heat, which aſcends from an Oven placed beneath.

Beer.

The ſprouted Grains, and likewiſe thoſe which have not ſhot forth, for both kinds are ſometimes intermixed, are afterwards moderately ground, but in ſuch a Manner, however, as to diſengage the Meal from the Bran.

The neceſſary Veſſels for making Beer, are large Coppers, and wooden Maſhing-Fats. The former of theſe are incloſed with a Work of Maſonry, and are likewiſe placed over a Brick-Stove, which has the ſame Dimenſions as the Bottom of the Copper.

The Maſhing-Fat ſhould have a real, and a flying or falſe Bottom. The real or proper Bottom, which is the loweſt of the two, deſcends in a Slant towards the middle, where there is a round Opening, which is cloſed up with a Rudder or Tapſtaff, whoſe Length exceeds the Depth of the Fat. The falſe Bottom is two Inches above the real one, and is compoſed of Planks, which are raiſed up, in order to be cleaned; and they have a great Number of ſmall Perforations. On this Bottom, a Surface either of Hops, or the threſhed Ears of Corn, is ſpread to the depth of an Inch. The Malt is then poured upon this Surface, and the hot Liquor which is pumped out of the Copper into the Maſhing-Fat, deſcends to the loweſt Part of it, through a Pipe inſerted between the two Bottoms: After which, it riſes gradually through the ſmall Apertures of the falſe Bottom, and cauſes whatever Subſtances it meets to aſcend with it, and float on its Surface. It ſhould neither be too hot nor too cold; and its juſt Degree of Heat is diſcovered by its Ebullition on the ſides of a wooden Peel, which is plunged into the Copper for that Purpoſe. The Fire is then immediately taken out of the Stove; after which the Liquor is ſhifted into the Fat, and the Malt is ſtrongly worked about with Maſhing Poles, in order to blend its Subſtance with the Liquor; and this is what is properly called Brewing.

The Malt is ſuffered to remain in the Maſhing-Fat, for the Space of an Hour; after which the Pole inſerted into the Aperture at the Bottom, is raiſed, up, and the Liquor, which is then impregnated with the fineſt and moſt nutrimental Parts of the Malt, flow through the little Openings in the falſe Bottom, where the Bran and all the groſſer Particles are detained, and the Liquor is then conveyed into a Reſervatory, through the Aperture in the proper Bottom.

A Quantity of new Liquor is then poured into the Maſhing-Fat, and worked about a ſecond and a third Time, with the ſame Malt, till this has diſcharged all its remaining Subſtance. The Quantity of Liquor infuſed into the Copper and the Fat, at theſe different Operations, is properly adjuſted, and twelve Buſhels of Malt are allowed to a Hogſhead of Water.

The Liquor thus incorporated with the Subſtance of the Malt, is ſhifted from the Reſervatory into a Copper, where it is boiled up with Male Hops; eight Pounds and a half of which are allotted to a Hogſhead of Liquor. And in order to redden the Beer, the whole Quantity is ſuffered to boil for the Space of four and twenty Hours. But if the Intention be to whiten the Drink, it will be ſufficient if it only begins to boil. It is then cooled by being poured into Backs, which are ſhallow Veſſels of a great Width and Length. When the Wort becomes luke-warm, it is diſcharged into another Veſſel, and mixed up with Yeaſt; a Pailful of which is allowed to every Hogſhead of Liquor. This Yeaſt is the Foam which the Beer diſcharges out of the Tun, and is preſerved in order to ferment a new Wort. When it has been ſeveral Hours in the Veſſel, it begins to work, and the Proceſs of this Operation incorporates the Spirit of the Hops with the Subſtance of the Malt. The Beer is then tunned, and the Veſſels continue open for the Space of two Hours, that all Impurities may be worked off, and the Tun is filled up every four Hours.

The Liquor, whoſe Proceſs I have been deſcribing, is called double Beer; but if only half the Ingredients I have mentioned be allowed to a Hogſhead of Liquor, the Drink of that Brewing will be Ale; and when no more than a third Part of theſe Ingredients are uſed, they will produce ſmall Beer. If a little Point of Coriander be infuſed, it will have a good Effect on the Beer. The Brewers of *Paris*, who make this Drink in great Perfection, are careful to preſerve it in that agreeable Condition, and never thicken it with Honey, or diſpirit it with Sugar. They are likewiſe as cautious not to render it windy and impetuous with the Shavings of Ivory, or with Ginger and other Spices, as is practiſed at *Liſle* and *London*.

Beer acquires its Perfection in Bottles, if it only remains in them for a few Months; but a longer Continuance will cauſe it to contract an inſupportable Bitterneſs, which ought to be prevented as much as poſſible.

Beer has been uſed at all Times, and in all Countries that are deſtitute of Vines. Cyder is thought to be a modern Invention; and if we diſcover ſome Traces of it among the *Jews**, and other Nations, it muſt, however, be ac-

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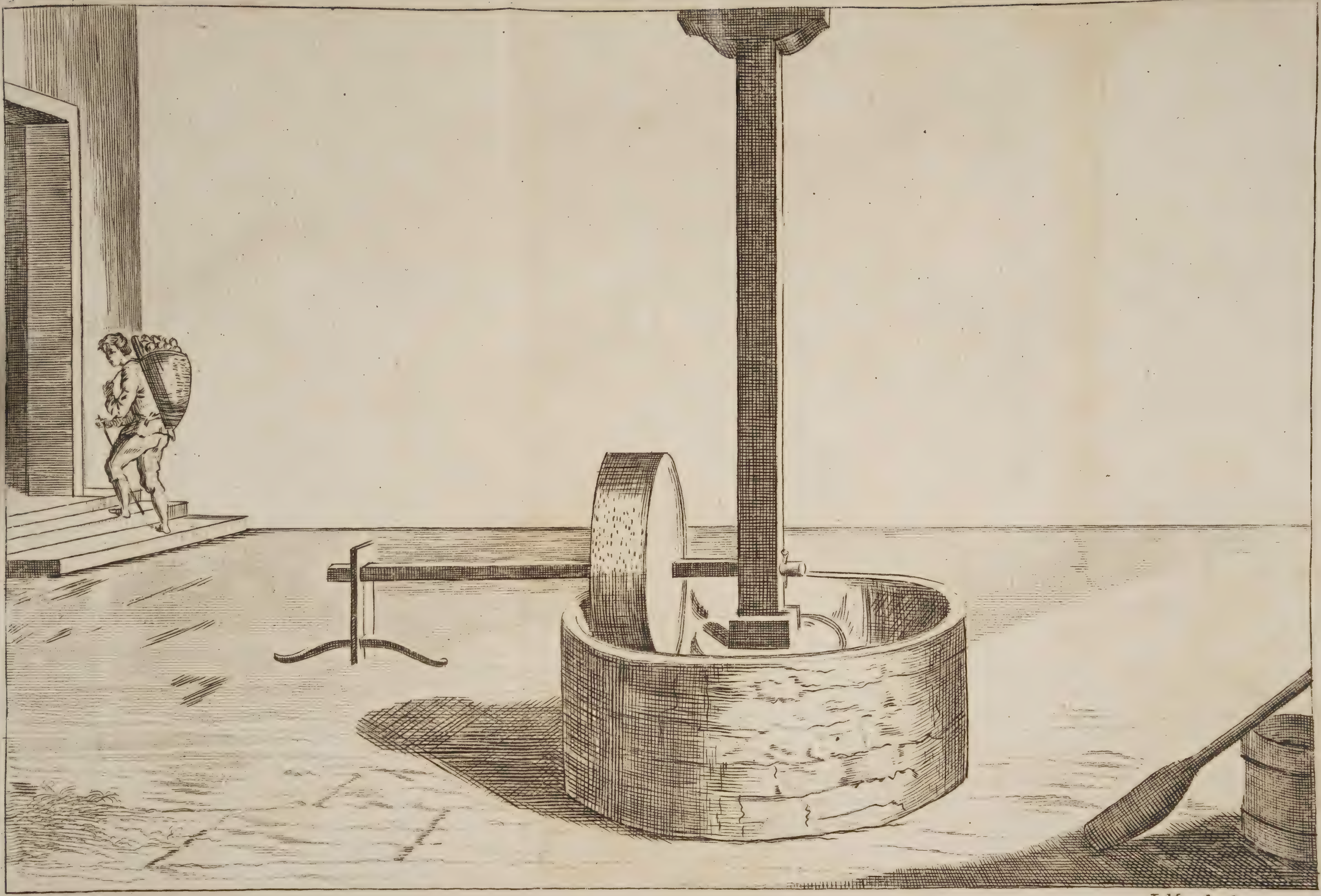
* Sicera, Hebræo Sermone (Shecar) omnis potio nominatur quæ inebriare poteſt, ſive illa quæ frumento conficitur, ſive pomorum ſucco. Hieron Ep. ad Nepot.

The Word Sicera, which in the Hebrew Language is expreſſed by Shecar, is applicable to all inebriating Liquors, whether they be made of Corn, or the Juice of Apples.

acknowledged, that it was not ſo univerſal a Liquor as it is at preſent; and that it has been only rendered common within the three laſt Centuries, in *England*, and likewiſe in *Normandy* where the old Methods of making it, and which are now uſeleſs, may be ſeen in ſome Monaſteries. The Uſe of this agreeable and ſalutary Liquor, has, within the ſpace of twenty Years, been rendered much more extenſive, in thoſe of our Provinces that are near the Ocean. But the *Chevalier's* Curioſity to know the Methods of making Cyder ought not to be interrupted by a long Hiſtory of this Liquor.

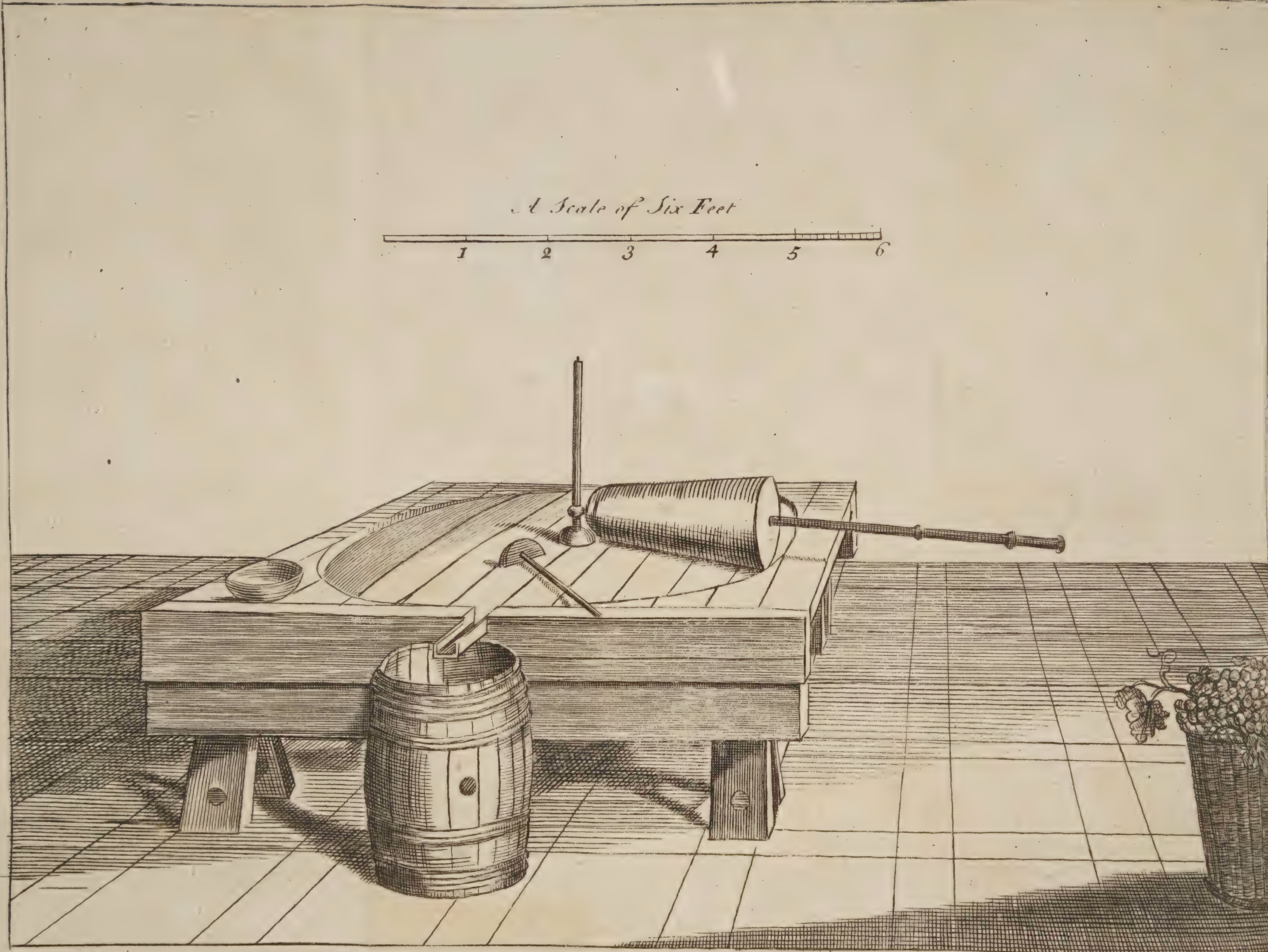
Cyder. *Counteſs.* Cyder is the Juice of Apples, but not of ſuch as are eſteemed for common Uſe; as the Reinitte, the Calville, and a Variety of other Species. It is produced from the moſt ſavage Claſſes of this Fruit, and from thoſe whoſe Flavour is leaſt agreeable to the Palate. Some of theſe wild Apples are ſweet, others very acid. Theſe latter produce very bad Cyder; and the beſt Method will be either to root up the Plant, or elſe to improve it by Grafting. The ſweet Apples are the only proper Fruits for affording an agreeable Cyder, which neither offends the Palate nor intoxicates the Head. The Apples ſhould be gathered from the Tree; but they may be ſhaken down with Poles, when the luxuriant Growth of a plentiful Year would render the other Method too tedious and expenſive. They are afterwards expoſed in Heaps, to the open Air, till they have acquired their due Perfection; after which, they are carried into the Conſervatory, where each Species is ranged according to its particular degree of Maturity; and in order to be preſſed, at different Times, till the Winter is far advanced. The ſound Fruits are firſt bruiſed in a large circular Trough, under two wooden Wheels, placed in an upright Poſition, and whoſe Axle-Trees are faſtened to a turning Beam, which is drawn round by a Horſe. Thoſe who are unprovided with an Engine of this Nature, may bruiſe the Apples with Peſtles. When this Operation is compleated, the pulpy Subſtance is conveyed to a Preſs, whoſe Structure corresponds with that of the Wine-Preſs. And to prevent this bruiſed Maſs of Apples from being ſcattered from the Preſs, Care is taken to diſpoſe it into a ſquare Bed four or five Inches thick; this is afterwards covered with a Surface of Straw, which ought



An Apple Mill.

J. Mynde sc.

Plate 24 Vol. II page 25


A Scale of Six Feet
1
2
3
4
5
6

I. Wynde sculps

A Preſs to ſqeeze Apples or make Verjuice.

to have a ſmall Projection over the Sides of the Heap. A ſecond Square of the cruſhed Fruit is raiſed upon this Spread of Straw; another Lay of which muſt cover the new Square; and this Diſpoſition is alternately formed, as long as is judged convenient. Inſtead of Straw, we make uſe of large Hair-Cloths, which are more adapted to contain the Marc. The great Beams of the Preſs are then lowered with the Wheel, and the Juice flows into a Fat that is ſunk in the Earth; from whence it is afterwards ſhifted into Veſſels, where it is ſuffered to ferment for the Space of fifteen Days, or three Weeks, and it is then ſtopped up.

Count. There is another ſmall Preſs, which prevents the Trouble of ranging the ſeveral Beds of Fruit and Straw. It is called a Box-Preſs, from its Similitude to a Box; and is calculated to contain the ſeveral Fruits that are to be preſſed, whether they be Apples, Pears, or Grapes. One End of the Box terminates in a moveable Beam, which is worked by a Wheel and a Screw, and the Juice flows through the Cavities that open in the Side.

Counteſs. If we intend to drink Cyder in its Perfection, and would have it flower in the Glaſs, we muſt wait till it has been properly prepared in the Fat; and when it begins to be agreeable to the Palate, it muſt be glewed like Wine, and may then be drawn off in Bottles, which will preſerve it much better, and for a longer Space of Time than Caſks. There is not much Difficulty in the Vintage of this Liquor, and it pleaſes me the more for that Reaſon.

Juniper-Wine, or Geneva.

Chevalier. Since the reſt of the Company have furniſhed their Quota's of excellent Liquors, I ought, in Juſtice, to make a Tender of mine; and indeed it has two Qualities that are greatly to be valued. It is very wholeſome, and occaſions little or no Expence. This Liquor is extracted from Juniper-Berries, and it may be called the Poor's Wine, though it is likewiſe uſed by Perſons of very affluent Fortunes. It is made with ſix Buſhels of Berries, and three or four Handfuls of Wormwood. Theſe Ingredients muſt be infuſed in eight Gallons and four Quarts of Water, for the Space of a Month; after which we may let the Marc ſink to the Bottom, and rack off the Liquor, which is rendered much better and more palatable by Age. It was either invented, or brought to Perfection, by the Count *de Moret*, Son of *Henry* IV. and whoſe Names has occured to me in Hiſtory. This Prince, who was thought to have been killed in the Battle of *Caſtelnaudarin*, paſſed the Remainder of a very long Life in a private Retreat, where he lived in a very devout Manner, with a few Solitaries, and always enjoyed a perfect State of Health, which he acquired by the Labour of his Hands, and the Uſe of this Liquor.

Prior. All Nations, who have been denied the Uſe of Wine, either by Nature or their Laws, have invented different Liquors. The *Indians* extract an excellent Juice from the Palm-Tree, but it loſes its Goodneſs in a few Days. The *Turks* have ſome particular Paſtes, which they dilute with Water, in order to render this Fluid more agreeable or nutrimental. The *Americans* diſſolve the Paſte of their Cocoas in Water. The *Lithuanians*, the *Poles*, and the *Muſcovites*, who have plenty of Honey, ſteep it in Water, which they boil to a moderate Degree, and then ſuffer the Mixture to ferment in the Sun, by which Means it becomes a very ſtrong and pleaſing Liquor, and is commonly known by the Name of Mead. The *Engliſh* extract Liquors from Raſberries, Gooſeberries, Strawberries, and a Variety of other Fruits; but their favourite Liquor is Punch, which is a Compoſition of two thirds of Brandy, and one of common Water; to which they add a proper Quantity of Sugar, Cinamon, powdered Cloves, and a Slice of toaſted Bread; Milk likewiſe, and the Yolks of Eggs, are frequently intermixed to thicken the Whole *.

Chevalier. Brandy and Milk! This, ſurely, is a ſtrange Compoſition.

Prior. We reproach them for their Mixture of Liquors, and they are as ſevere upon us for the Diverſity of our Ragoûts.

Count. What makes me more diffident of the Wholeſomeneſs of Punch, and much more of other ſtrong Liquors, is the Intermixture of Brandy, which is their conſtant Baſis, and a very pernicious one, in my Opinion.

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* The Author might have informed himſelf better, in what Manner Punch is made in *England*; but this is not the firſt Time that prepoſterous Cuſtoms have been aſcribed to our Nation by *French* Fanciſulneſs.

Chevalier. Brandy is however extracted from the ſtrongeſt, as well as the fineſt Parts of Wine; what injurious Conſequence, therefore, can reſult from the uſe of it?

Count. The Wine fetters theſe ſtrong and active Spirits; and they are likewiſe corrected by the other Principles, which accompany them. Thoſe Perſons who are acquainted with the Structure of our Bodies, and the Force of theſe Principles, have been induſtrious to diſtil and blend them together, in ſuch a Proportion as is beſt adapted to our Organs. But when the moſt active Parts of Wine are extracted by the Violence of Fire, which ſeparates them from the other Particles that would moderate their Impetuoſity; they muſt be conſtantly productive of Diſorders and Inflammatory Effects. They may indeed be ſerviceable, when uſed in a medicinal Manner, like ſome other chemical Diſtillations; but a frequent Recourſe to theſe violent Liquors, tho' the Quantity be never ſo inconſiderable, muſt infallibly vitiate the Blood, and impair the Organs themſelves. And this Obſervation has been juſtified by too many fatal Inſtances.

WOODS.

DIALOGUE XV.

The PRIOR. *The* CHEVALIER.

Chevalier. DON'T you obſerve, Sir, that, beſides the agreeable Freſhneſs we experience, when we enter theſe Woods, we are likewiſe ſenſible of a pleaſing Emotion, which I am unable to deſcribe; and whoſe Cauſe you undoubtedly can aſſign much better than myſelf?

Prior. The Softnings, which the Light receives from the branching Verdure; the Beauty and Height of theſe lofty Trees, and the ſolemn Silence that reigns all around us, exhibit an Air of Novelty and Grandeur, which immediately ſtrikes the Imagination, and inſpires it with a contemplative Sedateneſs.

Chevalier. This is certainly the propereſt Scene in the World for a Converſation on the Hiſtory of Nature; but I am apt to think the Foreſt itſelf can hardly furniſh us with any thing extremely curious. The ſame Objects are unfolded to our View from one end to the other, and the Eye can only wander over a Profuſion of Leaves and Wood.

Prior. Let us endeavour to conſider this Thicket in all the different Forms it is capable of aſſuming, and in all the various Uſes that can be derived from it. It may, perhaps, furniſh us, like other Parts of Nature, with new Motives to

Admiration and Gratitude. We will begin with the tall Stems which this Foreſt rears into the Air; and let us compare them with the humble Plants that are cultivated in the Plain below. How different is this Garden from ours! We think theſe latter very ſpacious, when they contain a few Acres of Earth; but this extends itſelf over a whole Country. Its Productions are without Number, and their Dimenſions are almoſt immeaſurable; and yet all theſe thriving Stocks riſe at the Diſtance of a few Fathoms from each other; and are frequently ſeparated by the ſcanty Space of four or five Feet. Who formed the Plan of theſe mighty Works, and conducted them to their ultimate Perfection? What Gardener charged himſelf with the Plantation of this amazing Number of Trees? Who had competent Abilities for pruning their redundant Growths, and affording them their ſtated Refreſhments of Water? My Curioſity equally prompts me to enquire into the Origin of this immenſe Garden, and the Uſes to which it was ordained.

Man is not the Being to whom the Plantation and Culture of Foreſts was conſigned. Corn, indeed, and Legumes, together with the Vine, and a few low Trees, have been ſubjected to his Induſtry, in order to exerciſe and employ him in a uſeful Manner. The Plants he cultivates are proportioned to the Minuteneſs of his Stature. Their Aſcent is very moderate, and they may be acceſſible to his Hand, that forms them. But the Deity has reſerved the Trees of the Foreſt to himſelf; and tho' he alſo gives Exiſtence and Growth to every other Plant, the Foreſts alone may be conſidered as his Garden. They have been planted by no Hand but his, and he is the only Being who affords them their Cultivation. He diffuſes their minute Seeds over the Surface of a whole Country. His wiſe Precaution has furniſhed the Generality of them with Wings, that they may be wafted with more Facility, by the Winds, which conduct them to various Soils. We ſhall be ſufficiently convinced of theſe Truths, if we caſt our Eyes to the Seed of a Linden-Tree, a Maple, or an Elm. He alone draws from them thoſe vaſt Bodies which riſe into the Air with ſuch an Aſpect of Majeſty; none but himſelf faſtens them with ſo much Strength in their ſeveral Situations; and ſupports them in that Diſpoſition through a Series of many Ages, in Oppoſition to the Winds, which he diffuſes over the

Earth. He alone ſelects genial Dews and ample Rains, from his Treaſures, to array his Trees with an annual Verdure, and to impart a Species of Immortality to their Growth. We may wander, even now, through thoſe Woods where the *Druids* gathered the Miſletoe of the Oak, amidſt the Solemnity of their Superſtitions, above two thouſand Years ago. We can ſtill behold the Foreſt of *Ardennes*, which covered a great Part of *Belgic Gaul*, many Ages before the Birth of *Julius Cæſar*. The *Black* and the *Bohemian* Foreſts are the Remainders of the *Hercynian*, which formerly ſtretched over all *Germany*, and was extended as far as *Tranſylvania*.

Chevalier. It is certain that theſe vaſt Foreſts were not planted by Men; for we are only ſkilful in cutting them down. Their Original, however, is eaſily diſcovered, ſince they are produced by the Earth itſelf. If we neglect to cultivate any particular Tract of Land, it will naturally ſhoot up a Growth of Wood.

Prior. The Idea we form of the Earth's Fecundity is very confuſed, and it not only diſhonours Truth itſelf, but weakens our Gratitude, by allowing the Ground that Prolifickneſs to which it has no Pretenſions. We have already obſerved, that all the Productions of the Earth are organized Bodies, which ſhe has no Power to faſhion, and which have been formed from the Beginning, by a Determination of the Deity, altogether as expreſs as that by which he created the Earth itſelf. A Seed which reproduces any particular Plant, is, itſelf, a Plant in Miniature, which bears a perfect Similitude to the preceding Tree, and is only diſengaged from its Covering, and gradually enlarged in its Growth. I may add too, that the Earth is not only incapable of forming Plants, but is likewiſe unqualified to nouriſh them. She is appointed to receive and diſtribute the nutrimental Juices they need, and may, in that Senſe, be called fertil; but ſhe neither furniſhes thoſe Juices from any Subſtance of her own, nor imparts any Increaſe of Growth. The Earth, of itſelf, is a dry and barren Maſs of dull Matter, which receives from other Sources the Aliment and Juices it communicates to Animals, and whatever elſe is ſuſtained by their nutritious Qualities.

The repeated Supplies of Leaves, Flowers, and Seeds with which the Trees are annually arrayed, and which they afterwards caſt off; together with the perpetual Diſſipations of the Sap, whoſe Freſhneſs we experience, not only in Foreſts, but even in a Timber Yard, and for a conſiderable Time after the Wood has been felled; are ſuch Conſumptions as would exhauſt the Earth in Time, were they furniſhed from her own Subſtance. If the repeated Loppings of Thickets and Foreſts were to be all thrown together for ſome Ages, they would form Piles as high as the Mountains themſelves on which they were cut; and if the Earth either produced the Woods, or nouriſhed them from her own Bowels, theſe would be all conſumed by Degrees. The Mountains, by being conſtantly undermined, and waſted by the Proceſs of ſo many deep Roots, would be inſenſibly diminiſhed; their Evacuations would ſink them from Age to Age, and the ſmaller Eminences would have been laid level with the Plains long ago.

The Earth, which nouriſhes our Foreſts, ſuſtains no Diſſipation of its Subſtance, but continues undiminiſhed, like the Earth in Boxes of Orange-Trees. Let two hundred Pounds of Earth be depoſited in a Box, and let a Tree be then planted in it; this Maſs of Earth, if it be weighed at the End of three or four Years, will prove altogether as heavy, as when it was firſt placed in the Box.

Chevalier. And yet the Orange-Tree has acquired conſiderable Acceſſions of Growth; and has likewiſe produced Leaves and Fruit two or three Times. Theſe have a Weight proportionable to their Subſtance; from whence then do they receive it?

Prior. Since the Earth continues as heavy as it was at firſt, the Materials of theſe Growths muſt be imparted from other Sources. The Soil itſelf only contains the Plant, and conducts to it the Juices that nouriſh it. Theſe mighty Foreſts, therefore, are planted by a Power that is always active, and by a Wiſdom that never ceaſes to be propitious, and by which they are ſupported without our Aid. This omniſcient Power perpetually impregnates the Air and the Earth with Salts and Water, Oil and Fire; together with all the Principles, either ſimple or intermixed, that are neceſſary to each particular Species.

Chevalier. I now can comprehend in what Senſe the Earth may be ſaid to be prolific. But the Deity, from whom this Fertility ſprings, would certainly have acted with more Beneficence to Man, had he formed large Foreſts of Fruit-Trees, inſtead of multiplying ſuch vaſt Growths of barren Woods.

Prior. The Trees of the Foreſt are called barren only in Compariſon with thoſe whoſe Seeds are covered with a Subſtance that preſerves them, and proves nutrimental to us; but they are ſo far from being juſtly chargeable with Sterility, that, on the contrary, they furniſh us with inexhauſtible Sources of Riches and Accommodations, which are much ſuperior to thoſe we derive from Fruit-Trees.

Chevalier. Foreſts may afford us a Shade for our Refreſhment in Summer, and Wood to warm us in Winter; but I am not conſcious of their procuring us any other Advantages.

The Uſefulneſs of Foreſts.

Prior. They are uſeful in all Parts. Let us firſt enquire into the Functions of their Leaves, and then conſider the Nature of their Seeds; after which we will deſcend to their Barks and Roots, and our Examination ſhall conclude with the particular Uſes to which their Wood is applicable.

The Uſefulneſs of the Leaves.

The Leaves are very uſeful on the Trees, and likewiſe continue to be ſo after their Fall. While they remain on the Tree, they exhibit one of the greateſt Beauties in all Nature to our View. The Verdure of our Fruit-Trees is infinitely inferior to that of Foreſts. This accommodates Mankind, and various Kinds of Animals, with a Freſhneſs equally ſalutary and delicious. It likewiſe imparts Life to the Trees themſelves, ſince, while they extend their Roots into the Earth, that their Fibres may extract the Juices it contains, they likewiſe expand their Branches into the Air, that the Spiracles of their Leaves may imbibe the ſpirituous and warm Particles, which inſinuate themſelves into thoſe Apertures, and invigorate the Courſe of the Sap to the Extremities of the Roots; and perhaps ſupply the Trees with the greateſt Part of the Sap itſelf; ſince the Probability of this Fact ſeems to be ſufficiently eſtabliſhed by the ſpeedy Decay of the Generality of thoſe Trees that want

Air, eſpecially on their upper Parts. For when they no longer receive any new Supplies of Juice from an Influx of Air, they ſoon languiſh and die, for want of that part of their Nouriſhment, which may poſſibly be moſt neceſſary to their Vegetation.

The Fall of the Leaves.

When the Air is ſo compreſſed by Cold, as to be incapable of exerting its Elaſticity in the Sap, this Fluid begins to be inactive; and if its Progreſs be not entirely diſcontinued, it, at leaſt, flows in a very languid Manner. The Leaves, which no longer diſſipate their Juices, by ſuch a Tranſpiration as was performed in the Summer-Seaſon, begin to thicken, and are at laſt diſcharged from the Tree by their own Weight, or the leaſt Gale of Wind, which then whirls them away. They cover the Earth, and rot around the Stems of the Trees, or under the Feet of Animals. One would imagine them to be then loſt, and entirely uſeleſs; inſtead of which, the Earth is enriched by their Putrefaction. The Rain diveſts them of the remaining Salts, and theſe are conducted by the Fluid to the Roots, where they are abſorbed by the extended Fibres. This Surface of decayed Leaves preſerves the Roots of young Plants, and defends them from the injurious Effects of cold Winds. It likewiſe covers all the Seeds, and ſurrounds them with ſuch a genial Humidity, as enables them to ſhoot forth as effectually as if they had been planted in the moſt kindly Soil, and were cultivated by the Labours of Man. The Peaſants burn great Heaps of theſe Leaves in the Winter Seaſon, and reduce them to Aſhes, that are proper for opening ſtrong and impliant Soils.

The Seeds, which ſeem to be as much the Sport of the Winds as the Leaves, are only diſperſed more effectually, in order to multiply the Species; and when they have rendered us the important Service of perpetuating our Foreſts, they are uſeful to us in many other Particulars.

The Uſefulneſs of the Seeds.

The Acorns of all the different kinds of Oaks, the Maſt of the Beech, and a Variety of other Seeds, are the favourite Food of Swine and wild Boars. The Berries of innumerable Trees nd Buſhes diſpenſe a ſeaſonable Nouriſhment to the generality of little Birds; and though we cul- vate in our Gardens the Trees which afford the *Corni*

Berry, the Nut, and the Filberd; the Foreſts are always productive of the Cornil, the Nut, and the Hazel-Trees. The Walnut-Tree, which delights in a free Air, is not adapted to a Garden, where it injures all the Plants around it; nor to a Wood, which choaks its natural Growth; it is therefore ſuffered to grow in the open Country, where it requires as little Culture as the Foreſt-Trees; but its Productions are preferable to moſt Fruits, as well with reſpect to the Table, as to the Oil extracted from them, and which accommodates the Poor with a frugal Light, and beſtows Immortality on the Works of Painters, whoſe Colours it ſtrengthens, and blends together in an admirable manner.

I ſhall not take any Notice of Cheſnuts; ſweet and bitter Almonds; or a Number of other Nuts that are very common among us; and ſhall only enumerate the principal Species of foreign Nuts, which are in greateſt Eſtimation at preſent.

The Nutmeg.

Of this Claſs is the Nutmeg, which is exceedingly valued for its ſalutary Heat, and its aromatic Odour. It is the Seed of a Tree which grows in the Iſland of *Banda*, and ſome others of the Eaſtern Ocean, where the *Dutch* have monopolized the Spices, either by right of Conqueſt, or by paying to the Inhabitants ſuch Penſions as are more beneficial to them than the Produce of their own Trees. The Nut is at firſt covered like our Nuts, with a thick Coat, which gradually opens of itſelf; and afterwards with a kind of Shell, which enfolds the whole Nut. This Shell, which is called Mace, is much eſteemed for its excellent Scent and medicinal Qualities. The Nut is ſent over to us, either in a Confection, or dried, and diveſted of its Mace; and it is uſed as an Ingredient in Seaſonings, as well as in Preſcriptions of Phyſicians.

Coffee, whoſe good Effects are univerſally eſteemed, is the Berry of a ſmall Tree, which was formerly known in no Country but the Kingdom of *Yaman* in *Arabia*; and as the Seeds which are found in the Heart of the Fruit, are qualified to clear the Head, and relieve it from Sleepineſs, when they have been infuſed in Water; the *Arabian* Monks are ſaid to have been the firſt who made uſe of them, that they might be enabled to perform their nocturnal Devotions without Drowſineſs. This artificial Drink came eaſily into Repute among thoſe Nations that frequently invent new Liquors to regale them inſtead of Wine, which the Law of *Mohammed* has prohibited among them. Some *Turkiſh* Doctors at firſt oppoſed the Introduction of this Liquor, and declared it to be too ſpirituous, and almoſt as inebriating as Wine itſelf; but the *Mufti* ſoon removed this Difficulty, and Coffee was vindicated from the Imputation of any vinous Quality, and was allowed to be a lawful Liquor. It was then publickly drank in *Conſtantinople* and *Cairo*, from whence it has been tranſmitted to us about ſixty Years ago.

Chevalier. I am ſurpriſed that we don't ſow this uſeful and popular Seed, in our *Southern* Provinces at leaſt.

Prior. It will not ſucceed either there, or in any other Part of the Kingdom, becauſe it ought to be ſown immediately after it has been gathered. It was formerly imagined, and ſeveral People are ſtill perſuaded, that the *Arabians* of *Mokha* drenched the Berries in a Brine, or ſome lixivious Liquor, before their Exportation; to prevent their being ſown with any Succeſs, and that they themſelves might not be deprived of the Profits of this Plant, by its Propagation in other Regions. But ſince ſome of the Trees have been tranſported to the Iſle of *Bourbon* *, as well as to *Batavia* and *Holland*; and likewiſe from *Holland* to *France*, where they have been cultivated in a ſucceſsful Manner; we have been convinced, that the Seeds of this Plant will never proſper, if their Plantation be delayed ever ſo little. Thoſe that were gathered at *Amſterdam*, and ſent to *Paris*, were unſucceſsful; but all ſuch as were gathered either at *Amſterdam*, or in the King's Garden, from little Trees, which had been planted there, proved very thriving, when Care was taken to ſet them the Moment they were gathered.

The Coffee-Tree may be ſeen in the Royal Garden, where its Height does not exceed five or ſix Feet, and its Stem is about an Inch in thickneſs; but it riſes to the Height of forty Feet in *Arabia* and *Batavia*, though its Thickneſs ſeldom exceeds five Inches. It is always covered with Flowers and Fruit. It ſhoots out, through the whole Length of its Stem, a growth of Branches which are always exactly oppoſite to each other, and in different Pairs, one of which croſſes the other. The Leaves, which reſemble thoſe of the common Laurel, are alſo ranged in Couplets; at the Bottom of theſe ſpring the fragrant Flower-Branches, which have a near Similitude to thoſe of the Jaſmin, and have five Chives in their Center. The Berry or Fruit which appears after theſe, is not much unlike a hard Cherry, in its Colour and Shape. The Fleſh, which is not diſagreeable, ſerves as a Tegument to a Couple of Shells, each of which contains a Seed. One of theſe is frequently abortive, becauſe its due Fecundity is ſeldom imparted to it in the Flower-Seaſon; the other grows ſtronger, and receives a better Nouriſhment.

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* It lies to the Eaſt of *Madagaſcar*.

The Uſe of Coffee.

Some Perſons infuſe all the Fruit, after it has been dried; others chooſe the Shells; but the beſt and moſt uſual Method is only to infuſe the Berries, when they have been moderately roaſted in a Veſſel of varniſhed Earth, which is always preferable to one of Braſs or Iron. The Berries are judged to be ſufficiently roaſted, when they begin to aſſume a Violet Hue, and diſcharge an Oil of a very agreeable Scent. The Coffee which is newly ground has always the moſt Virtue; and when it is infuſed in boiling Water, it loſes fewer of its volatile Parts, than when it is immediately poured into cold Water. When the Heat of the Fire raiſes the Powder to the Edge of the Coffee-Pot, it is precipitated with a few Drops of cold Water.

It is the Opinion of our beſt and moſt experienced Phyſicians, that Coffee promotes Digeſtion, and corrects ſharp Humours, when it is drank after Meals. Several Perſons prefer it in the Morning, for its Diſſipation of Vapours and other Diſorders of the Head, and for imparting a Livelineſs to the Spirits. Every one knows how much the Repoſe of the Night is hazarded by the repeated Uſe of this Liquor in the ſame Day; and what Precautions are taken to correct the bitter Flavours of its Salts with Milk, and Sugar, and Bread. Sugar is a conſtant Ingredient; Bread is proper, when the Liquor is drank in a Morning; and Milk is neceſſary for thin Conſtitutions, which would otherwiſe be injured by the Salts.

Chevalier. Is there any particular Choice to be made in the Purchaſe of Coffee?

Prior. The ſmall and greeniſh Berries, and eſpecially thoſe which diſpenſe an agreeable Scent, and are tranſmitted to us from *Cairo*, by the Way of *Marſeilles*, are much more eſteemed than the large and inodorous Species, which is tranſported to us over the Ocean.

Chocolate.

The Cacao, which affords the principal Ingredient of Chocolate, is likewiſe a Seed. They are ranged like Kernels, or Almonds, in a kind of Cucumber or Melon, which grows on a ſmall Tree in *America*. Thirty-five, and ſometimes more, of theſe Almonds, are found together; and when they have been diveſted of their Shells by Fire, and are afterwards peeled, and roaſted in a Baſon, before a moderate Fire, they are pounded in a very hot Mortar. The *Americans* bruiſe them with an Iron Cylinder, on a flat Stone made very hot; they are then formed into a Paſte, which is afterwards boiled with Sugar; and this is called plain Chocolate. But if it is to be enriched with a fine Odour, four Pounds of this Paſte, and three of powdered Sugar, are worked together in a Mortar, or on ſome Stone. When the Whole is well intermixed, they add to it a Powder compoſed of the Seeds of eighteen Shells of Vanilla, a Dram and a half of Cinnamon, and eight Cloves; ſome People add two Grains of Ambergreaſe; others one Grain of Muſk; and perhaps the leaſt Quantity of this will always be too much. Pepper and Ginger are more eſpecially rejected, and this Compoſition is diverſified according to the Taſte of the different Nations and particular Perſons. The whole Intermixture is compleated as ſoon as poſſible, to prevent too great an Evaporation of the volatile Parts. It is then worked into Squares, which are either eaten in that Form, or elſe they are diſſolved in Water, and then drank.

Chevalier. How is this Liquor prepared?

Prior. Four Ounces of new Chocolate, and a leſs Quantity of powdered Sugar, are infuſed in a Pint of Water that begins to boil. The Chocolate-Pot ſhould be covered, and ſuffered to boil for the ſpace of a quarter of an Hour; after which, the Liquor muſt be milled with an Inſtrument formed for that Purpoſe, and which paſſes through an Aperture in the Lid. The Pot is then taken from the Fire, and when it has ſtood for a Quarter of an Hour, the Liquor is milled a-new, in order to froth it; after which, it is poured into Cups, and drank as hot as poſſible. A little Chocolate is ſaid to be as nutrimental as a much larger Quantity of other Food, and it has the Reputation of promoting the proper Functions of the Stomach.

Chevalier. I have heard frequent mention of Cocoa-Nuts, which ſhould certainly be diſtinguiſhed from Cacao.

Prior. They are entirely different from each other. *India*, *America*, and other Countries abound with Foreſts of Cocoa-Trees, which are a Species of large Palms, that produce Nuts bigger than the Head of a Man. It would be difficult to determine whether the Nut or the Tree itſelf be moſt beneficial to the Inhabitants. The Wood is fit for building Houſes and Ships, the Leaves, which are very broad and ſubſtantial, ſerve as a Covering to the Roof; they are likewiſe manufactured into a Parchment, proper for Writing; and are alſo formed into Sails for Veſſels. The Branches, when they are preſerved, will diſcharge a Liquor as agreeable as Wine, and which may either be preſerved by boiling, or elſe converted into Vinegar. The inward Surface of the Nutſhell produces a very fine woolly Subſtance, fit for making Ropes, and for calking the leaſt Apertures in Ships. The Shell itſelf is made into Bowls, Spoons, and all Sorts of Utenſils. The Subſtance of the Nut is an excellent Food, and it affords an Oil equally good either for the Table or the Lamp. It likewiſe contains from two to four Pints of a delicious Water, which is the uſual Drink of the Inhabitants, and their Children.

Chevalier. Can you favour me, Sir, with ſome Account of *Caſhoo*, which is employed as a Remedy for Diſorders in the Throat, and other Indiſpoſitions? It ſometimes reſembles a ſmall Seed; and at others, one would be apt to take it for ſome Species of Earth.

Prior. It is nothing more than a dried Paſte, which is ſent over to us either in a large Maſs, or in ſmall Grains, which have been ſcented with ſome Perfume. But this Paſte is the Subſtance of a Nut which is gathered from a Palm-Tree called *Arec*. It is cuſtomary to extract from it a Juice or Sediment which gradually thickens, and the Phyſicians recommend it as a uſeful Remedy in ſome Diſtempers.

It would be tedious to enter upon a Detail of the various Aids Phyſic daily borrows from the Seeds of domeſtic and foreign Plants; we will therefore take a ſhort Survey of the Uſe to which the Barks are appropriated.

The Uſefulneſs of the Bark of Trees.

The Barks of Trees are thoſe Parts of them which are moſt impregnated with Salts and Oils; becauſe the Sap and oleaginous Particles, which aſcend through the long Fibres of the Wood, are returned back through the Bark. This Profuſion of Salts, and other Principles of Vegetation, is manifeſted by the Goodneſs of the Bark-Aſhes, which are always preferable to thoſe of the peeled Wood; and the powdered Bark of Oaks, and other Trees, is rendered ſo very uſeful as it now proves in Tanning Leather, by the copious Salts and Oils, with which it abounds. When a Skin has been frequently powdered over with this Bark, it will be ſtrengthened, and likewiſe rendered pliant. The Salt, which penetrates into every Part, fortifies and preſerves it from Corruption, and the Oil, which pervades the whole Subſtance of the Skin, cauſes it to become ſupple, and accommodates it to all the Motions of the Body it afterwards arrays. The Oil likewiſe renders it impenetrable to the Water.

When this Tanner's Bark has been employed in manufacturing Leather for our Uſe, it is not yet diveſted of all its good Qualities, but is formed into Clods, or ſmall Turfs, which, when they have been well dried, furniſh the Poor with Fuel at little or no Expence; but as the Aſhes of theſe Turfs have no longer an Intermixture of Salts, they are then entirely uſeleſs.

There are other Barks of Trees, which form a conſiderable Branch of Commerce; ſome of them are aromatic, as the Bark of the Cinnamon-Tree in the Iſland of *Ceylon*. Others are medicinal, as the *Peruvian* Bark, which is called *Quinquina*, and ſeldom fails to cure intermitting Fevers, provided it be neither old nor inſipid. Some are capable of being ſpun, as the Bark of Hemp, and that of ſome particular Trees in *India*, from which the Natives draw long Filaments, that are afterwards manufactured into Stuffs, with an Intermixture of Silk and Cotton.

Chevalier. Two Days ago the Counteſs was preſented with a Box that contained two Pincuſhions, a Handkerchief,

chief, and a Pair of laced Ruffles. The Stuff that covered the Pincuſhions, the Linen of which the Handkerchief was made, and the Lace of the Ruffles, were all produced from the natural Bark of the ſame Tree; the Letter which accompanied the Preſent, was to this Effect:

“ The Mountains that riſe in the middle of *Jamaica* have a Growth of Trees of a moderate Size, and which the Inhabitants of the Country diſtinguiſh by the Name of *Lagetto*. The Leaves reſemble thoſe of a Laurel-Tree, the exterior Bark is almoſt as hard and brown as that of other Trees. But what appears very ſurpriſing, is, that the inward Bark, which, at firſt, ſeems white and very ſolid, is compoſed of twelve or fourteen Films, which may be eaſily ſeparated into as many Pieces of Stuff or Cloth. The firſt of theſe Films, which immediately ſucceeds the groſs Bark, affords a Cloth ſubſtantial enough to be formed into Habits. The inward Films reſemble Linen, and are proper for Shirts. But all theſe Films, that compoſe the interior Bark of the ſmalleſt Branches, are ſo many Pieces of exceeding fine Gauze, or Lace, which extend, and then ſhrink back, like a ſilken Net. A Neckcloth made of this *Lagetto* Lace was formerly preſented to *Charles* II, King of *Great-Britain*; and all theſe vegetable Cloths are ſtrong enough to be waſhed and whitened, like common Linen*.

The ſame Letter adds†, that there is another Tree in this Iſland, which produces a Fruit, whoſe Pulp is a natural Soap that will ſerve to waſh the Linen Product, and the Stones of it are uſed as Buttons to wearing Apparel.”

Prior. That Country can't want Manufactures; but we need not go ſo far in ſearch of uſeful Barks.

Cork.

Chevalier. Cork, which is ſo inſtrumental in preſerving the moſt precious Liquors, is only a Bark, as I have been informed.

Prior. Nothing more, Sir; and when it appears ſo black and rugged, and likewiſe proves ſo light, one would hardly imagine it could be ſo uſeful as to cloſe the Orifice of all ſorts of Veſſels, with ſo much Exactneſs and Pliancy; and that it ſhould alſo be impenetrable to the Liquor.

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* Nat. Hiſt. of Jamaica by Sir Hans Sloane, Vol. II. p. 22.

† Ibid. p. 132.

Cork, or the Tree which bears that Name, is a Species of large Ever-green Oak, which grows in *Gaſcoign*, *Spain*, and *Italy*. Its Acorns fatten Swine better than thoſe of the common Oak. Its Bark cracks and diſengages itſelf from the Tree, in conſequence of its being impelled by another Surface of Bark which is formed beneath it. Care is however taken to prevent this natural Effort; and in order to acquire large and even Pieces, it is cuſtomary to make a perpendicular Inciſion through the whole Length of this great Tree, and two tranſverſe Inciſions, one towards the Head, and the other at the Bottom of the Trunk. The Bark is removed without being ſhattered, and is then ſoftened in Water; after which it is placed over a Bed of burning Coals, which blackens its outward Surface. When this Operation is over, it is worked into a Level by a Weight of Stones heaped upon it, and is afterwards dried and diſpoſed into Bales for Tranſportation.

A circular Gaſh, and generally a ſlight Inciſion in the Bark of certain Trees, are the uſual Expedients for extracting Liquors, Gums, and Reſins, which are uſeful in various Inſtances. The Pine, by theſe Means, is qualified to ſupply us with Pitch and Tar, for our Veſſels and their Cordage. The Fir, the Larch, the Cedar, the Cypreſs, the Maſtick, and Turpentine-Trees, with ſome other Species, are thus taught to afford us Reſin, Turpentine and Weeping-Maſtick, together with Incenſe and all the Variety of viſcous Juices that enter into the Compoſition of Varniſhes, Perfumes, and medicinal Remedies.

It is the Bark of different Species of Trees, that furniſhes a Flow of Balm, which is a liquid Gum, whoſe exquiſite Odour renders Mankind ſolicitous to obtain it, and likewiſe to derive Advantages form its other Qualities. Its principal Merit conſiſts in cloſing up Wounds, and diſcharging their Impurities. The Balm-Trees, which formerly grew in *Judæa*, are entirely eradicated from that Soil, and have been transferred to *Grand Cairo*, which is thought to be the only Place where they are cultivated at preſent. Another Species of this Tree, called the *Copabu*, is reared in *Braſil*, and in our Colony of *Cayenne*. The Balm-Tree, which affords a viſcous Liquor, whoſe Scent correſponds with that of Amber, and which is therefore called liquid Amber, is a *Mexican* Shrub, whoſe Leaves reſemble thoſe of the little Maple. The Inhabitants of our *Miſſiſippi* Plantations imagine they have found the ſame Shrub in that Country. The Balſam of *Tolu* is brought from *Carthagena* to *Mexico*, and that which comes from *Peru* ſtill continues in great Eſteem.

If the agreeable Scent imparted by the Sap of our Limes, Poplars, and Birch-Trees, does not promiſe us a balſamic Fluid, it, at leaſt, ſeems to indicate ſome uſeful Quality that has hitherto been too much diſregarded.

Nothing is more uſual than to ſee a particular Gum flow from the Bark of moſt Trees. Thoſe which are chiefly employed in medicinal Preparations, and likewiſe in Manufactures, are the Gum *Arabic*, which gleets from the *Acacia* of *Egypt* and *Arabia*; the dropping Gum, which iſſues from a Tree in the Kingdom of *Camboge*; and the Gum which is imported among us from *Senegal*. That which trickles from our Cherry-Trees is as much eſteemed by ſeveral Workmen, as any of the foreign Gums. We will now beſtow a few Obſervations on Roots.

Roots.

As Roots are bent in the Earth proportionably to the Obſtacles that occur in their Progreſs, they are conſequently more contorted and knotty than any other Portion of the Tree. As the Fibres therefore of theſe Parts are formed into ſuch a Variety of Deflections while ſome of them are extremely dry, and others are drenched with different Fluids; they furniſh our Eboniſts with Pieces of Wood that are veined and clouded with ſuch a Diverſity of Colours, as ſeem to have been traced out by the Pencil of a Painter.

Roots likewiſe ſupply Carpenters and Wain-wrights with Wood, naturally bent into the Shape of a Bow; together with other Pieces, whoſe Solidity almoſt renders them unchangeable, and perfectly qualifies them for thoſe Parts of the Work on which the greateſt Streſs is afterwards to be laid.

Dyers alſo uſe a Variety of Roots; but thoſe which are ſalutary to us in our Indiſpoſitions are almoſt innumerable; and no Remedies are ſo efficacious in all the *Materia Medica* as the *Pareira-brava* Roots in Fits of the Stone; the *Ipecacuanha*, in Dyſenteries; and *Rhubarb*, in Diſorders of the Stomach.

As great and various as the Advantages we derive from the ſmalleſt Parts of Trees may prove, they are not comparable to thoſe we conſtantly obtain from the Wood itſelf. The Deity ſeems to be daily creating an inexhauſtible Subſtance, whoſe Pliancy qualifies it for the Reception of every Form we would cauſe it to aſſume, and whoſe Solidity preſerves it in all thoſe imparted Shapes.

The Suppleneſs of Wood conſiſts in its Facility to be bent, and cloven, and poliſhed. A young Branch is commonly weak and flexible, and there are ſeveral that may be bent into Circles, without breaking. In this contorted State, they acquire the Pliancy of a Cord, by which means they may be twiſted into Bands, as well for Faggots, as for thoſe enormous Floats of Wood, ſix and thirty Fathoms in Length, which are conveyed from one River to another, and traverſe whole Provinces at an inconſiderable Expence; and each of which will, by the Aſſiſtance of no more than forty Men, be enabled to diſcharge fifty Loads of Wood at the Gates of thoſe great Cities that want it.

Several Species of Wood, as the Cheſnut, the Hazle, the Birch, the Aſh, the Willow, the Oſier, or Dwarf-Willow, and a Variety of other Trees, have a conſiderable Quantity of large and ſmall Branches, which are ſo very ſupple and pliant, that the greateſt of them, when they have been ſplit from End to End, are capable of being rounded into Hoops, ſtrong enough to bind together all the Staves of Tuns and large Fats, almoſt beyond the Poſſibility of ſtarting; and when the leaſt Branches have been ſlit, in the ſame manner, they are made into leſſer Hoops, fit for binding Hogſheads, Laundry-Veſſels, Pails, and Caſks of all Dimenſions.

The Oſier, by its Flexibility, furniſhes the Gardener with Bands for paliſading all his Trees; and ſupplies the Baſket-Maker with Materials for Panniers, Flaſkets, Scuttles, Hurdles, and ſuch ornamental Works for Deſerts, as are rendered very agreeable by their Texture, and the Variety of their Colours.

The chief Merit of the Oſier conſiſts in its Aptitude to preſerve our large Tuns in a compact State, and to reduce the opening Staves to their firſt Coheſion; by which means they impriſon the moſt impetuous Wines, and render their Tranſportation as practicable as that of the moſt ſolid Cargoes.

The young Branches are not the only Wood that will aſſume any Form we pleaſe to give it; ſince the moſt ſolid Growths, when their Bulk has been ſufficiently diminiſhed, will prove tractable under the Hand of the Workman, and eſpecially by the Aid of Fire. The Cooper, for Inſtance, when he has ſhaped and planed his Pipe-ſtaves, connects their Tops together in the Form of a Caſk, by the Aſſiſtance of a Hoop which embraces them; and he then kindles a briſk and clear Fire in the Inſide of the intended Veſſel, the Pores of which are opened by the Heat, and every Part is in Agitation for ſome Moments. In the Inſtant of their Diſunion he diſpoſes a Cord round the Extremities of the Staves, and then contracts its Circumference with an Inſtrument for that Purpoſe; and as the Breadth of each Stave gradually diminiſhes from the Middle to the Ends, he forces them to bend and approach each other, while they form an inward Slant, which occaſions a Swelling in the middle of the Veſſel, and facilitates the ſliding of the ſeveral Hoops over one another. In conſequence of which the middle Hoops may be changed, unbound, or faſtened a-new, without diſplacing thoſe that encompaſs the Extremities of the Staves.

Turners likewiſe by the Aid of Fire give a Rounding to the Planks of Oak or Beech, which they ſhape into Pails, Buſhels, and other Meaſures of every kind.

The ſame Expedient is employed in binding the Side of Muſical Inſtruments, and cauſing them to acquire that Proportion and Lightneſs, by which they are rendered ſuſceptible of the Vibrations of the Strings that are ſtretched upon them. The thin Shell of Wood which covers the Body of a Violin, inſtead of giving a languid Repercuſſion of the Notes, after a Series of a hundred Years, will become more ſonorous, and under the Bow of a * *Dubourg*, will kindle an Audience into a pleaſing Enthuſiaſm. A *Geminiani* will ſoften its Modulations into inimitable Eloquence, whoſe Language will be intelligible to each Individual, becauſe it will always be addreſſed to the Heart.

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* The Tranſlator has taken the Liberty to change the French *Forcrois* and *Marais* for the amiable Names of *Dubourg* and *Geminiani*, whoſe Harmony will never be depreciated by the Violins of any Nation whatever.

The Subſtance of Wood accommodates it ſelf to our Neceſſities, not only by its Pliancy in bending, but likewiſe by its Diviſibility into as many Parts as we pleaſe.

Chevalier. From whence, Sir, have moſt Species of Wood the Aptitude we obſerve in them, of cleaving through their whole Length; and what can occaſion the Difficulty we experience in cutting them tranſverſly?

Prior. This Conſtitution, which is called the Grain of the Wood, reſults from the Situation of the long Tubes, which being diſpoſed in Lines parallel to each other, through all the Length of the Tree, in order to conduct the Sap to the Foliage and Fruits, may be diſunited by the Inſertion of a Wedge; but their Combination forms a Solidity, which will not eaſily yield to any lateral Effort.

Chevalier. This is much the ſame Circumſtance as attends a Pacquet of Hemp or Silk; one half of which may eaſily be ſeparated from the other, but it will be very difficult to rend them tranſverſly; and if the whole be twiſted, in order to unite the ſeveral Threads more effectually, they will be formed into a Cord ſtrong enough to raiſe Bodies of the greateſt Weight.

Prior. There is this Difference between the Threads which compoſe a Cord, and the Fibres which conſtitute a Piece of Wood; that the hempen Threads being naturally flexible, and very crooked, are unable to ſtiffen and conſolidate the Cord in its Length; whereas the fibrous Tubes, which form the Grain of the Wood, are deſtined to convey the Sap, and are therefore very ſtrait for the generality; and when they have been well impregnated with their proper Nutriment, and are ſtrengthened in a ſubſtantial Manner, one againſt another, their mutual Concurrence in the ſame Direction forms a Maſs of that Firmneſs and Solidity through its whole Length, that a perpendicular Piece of Oak, an Inch ſquare, will ſupport a Weight of eight thouſand Pounds; and a very few Props will ſuſtain an enormous Load of Timber-Work, when the Wall on which it reſted is removed.

But before we enquire into the Advantages we derive from the extreme Force of Wood, let us employ a Moment's Conſideration on the Services it renders us by its Diviſibility, and the beautiful Smoothneſs into which it can ſo eaſily be wrought.

The Ax, the Saw, and the Plane, enable us to divide a Trunk or Branch of a Tree into as many thin Planks as we pleaſe. This Wood may be hollowed, rounded, and poliſhed; it is likewiſe capable of being turned and contorted like ductile Wax, in order to be ſhaped into Baniſters, Door-Caſes, Wainſcots, Saſhed Frames, Wardrobes, and all thoſe fine Branches of Furniture that are formed by the Joiner, for the Reception of thoſe Things we are deſirous of preſerving. I would add, too, that a Set of Furniture of this Nature renders our Apartments as ornamental, and even more ſalutary than they would prove, were they hung with ſplendid Silks, and the richeſt Paintings, or were incruſted with the moſt magnificent Marble. When a Varniſh is ſpread over the whole Work, it ſmooths it from End to End with the utmoſt Uniformity, and its Bitterneſs chaſes away the Worms that would otherwiſe injure the Furniture at our Expence.

The Facility with which all the Species of Wood may be divided and poliſhed has awakened the Induſtry of Eboniſts, through a Series of many Ages. They have acquired the Art of cutting the Extremity of a ſmall Portion of Wood, agreeable to the Profil of the Figure they would cauſe it to aſſume. They can aſſemble, and glew a Range of delicate Compartments, regular Landſcapes, beautiful Flowers, and curious Groups of Animals, on a ſolid and ſubſtantial Ground; and the Whole ſhall be compoſed of little Squares of foreign or domeſtick Wood, adjuſted with the niceſt Œconomy.

They ſelect the Olive-Tree, for its rich Veins; the Walnut-tree, for its gloſſy Clouds; the Ebony, for the ſurpriſing Beauty of its ſable Hue; the Box, for its golden Yellow; the Braſil, for its amiable Red; the ſmall Cherry-Tree, for the Luſtre of its Poliſh; the Maple, for its pleaſing Spots; the Pear-Tree, for its Facility in aſſuming the Tincture of Ebony; the Cedar, for its Immunity from Corruption; the Wood of *St. Lucia*, which is a Species of the little Cherry-Tree of *Lorrain*, the Aloe, and a Variety of other Woods, for the Richneſs of their ſeveral Odours. Theſe are formed, by the Art of Joinery, into Bureaus, Cabinets, Book-Caſes, Boxes, Pedeſtals for Pendulums, Vaſes and Statues; and the principal Merit of theſe Works, conſiſts in their being conducted with a Simplicity of

Deſign, a Propriety of Execution, and a Solidity through the Whole.

The eaſy Method of cutting Wood, and ſmoothing it into the fineſt Surface, promoted the Invention and improvement of the Art of Turning. The hardeſt Species of Wood, as the Box and the Maple, which are ſcarce ſuſceptible of any Impreſſions from Iron and Steel, may, when they are conſigned to the Hands of the Turner, be eaſily rounded, and diminiſhed into a Delicacy of Shape; they are capable of being ornamented with flowing Fillets, riſing Gorges, hollow Flutings, and ſwelling Fruits. His Inſtrument can form them into Columns, Baluſtrades, Boxes, and every other Figure he pleaſes to afford them. This agreeable Art has, at all Times, made repeated Tranſitions from the laborious Artiſan, to Perſons of diſtinguiſhed Rank; it has relaxed the Auſterity of monaſtic Solitaries, and has had the Honour to be the favourite Amuſement of Princes themſelves.

The Conjunction of Solidity and Pliancy, in the ſame Portion of Matter, is the Reaſon why Wood has been ſelected for repreſenting, in high or demi-Relief, the Figures of Men and Animals, Flowers and Foliage; with all the Ornaments that have ever been attempted on Marble and Metals, in order to perpetuate their Duration. But alas! a falſe Taſte, with a partial Fondneſs for Glitter, has frequently condemned the fineſt Touches of Sculpture to Obſcurity, under a radiant Surface of Gold and Silver! How many rich Figures of *German*, *Pilon*, and others of our beſt Statuaries, have loſt the greateſt Part of their expreſſive Energy, and delicate Lightneſs, under the Bronze and Gildings that incruſt them!

Chevalier. I have heard a Piece of Hiſtory related, which correſponds very much with your Obſervations. *Lycippus* of *Sicyon*, formed an incomparable Statue, which repreſented *Alexander the Great*, in the Bloom of Youth. *Nero* cauſed it to be gilded over, becauſe it was only Braſs. This ridiculous Ornament defaced all the Beauty of the Features, and hardened every Grace in the youthful Form. The Gold was at laſt taken off, and the Statue appeared more valuable than before, even with all the Diſadvantages it had ſuſtained from its injurious Embelliſhment. But I don't conſider, Sir, that I interrupt your Account of the Benefits we receive from Wood.

Prior. The Sequel would be too long for one Conference; for which Reaſon the Enumeration of the Advantages we derive from the Solidity and other Qualities of Wood, ſhall be reſerved for your Entertainment To-morrow.

WOODS.

DIALOGUE XVI.

The PRIOR. *The* CHEVALIER.

Prior. IN our Yeſterday's Converſation, Sir, I intimated to you ſeveral of thoſe Advantages we derive from the Trees of the Foreſt; but they are rendered ſtill more beneficial to us by their large Dimenſions, and chiefly by that Texture of their conſtituent Parts, which prevents their Separation. We may eaſily diſcover, in the wide Scenes of Nature, a Number of Bodies that are very maſſive and compact; ſuch as Stones and Blocks of Marble, which we can appropriate to a Variety of Uſes. But we find it very difficult to aſſemble and range theſe Maſſes in ſuch a Manner as may be ſubſervient to our Deſigns. They are very untractable as well as brittle, and are only uſeful to us, by continuing in a State of Immobility; whereas the moſt enormous Maſſes of Wood are always obſequious to the Intentions of Man. Trees of eighty Feet in Length plunge their Roots into the Bowels of the Earth in ſearch of a ſolid Bottom, in ſoft Soils that would ſink under a Weight of Building. Theſe mighty Growths of Wood may, by the Force of Blows, be driven deep either in the Earth or Water, where they will form a Foreſt of immoveable Piles that are frequently incapable of Corruption, and will for ever ſuſtain the Weight of the largeſt Structures, with ſuch a firm Coheſion and Equality, as are not to be obtained even from the Solidity of the Earth itſelf.

I likewiſe ſee vaſt Bodies of Timber diſpoſed in a very different Situation. They aſcend to the Tops of Buildings, where they ſtrengthen the Walls, and prevent their ſtarting from the Poſitions aſſigned them; they ſuſtain the whole Preſſure of a huge Roof of Tiles, or Slates, or even Lead itſelf.

Is it, at any time, neceſſary for them to be in Motion, for the Service of Mankind? You will then behold immenſe Beams, which almoſt appear unmanageable, moving from their Places, and adapting themſelves to the full Play of mechanic Powers. They mount aloft, they deſcend, they roll, they whirl along, with as much Agility as Force, for the Satisfaction of Man, and to aid the Inability of his feeble Arms. They furniſh Materials for thoſe Frames that ſuſtain, for many Ages, the ponderous Swing of the largeſt Bells. They are ſhaped into Naves, and Axle-Trees, Wheels, and weighty Carrs; and are converted into all the Vehicles that can poſſibly be formed, by the Wain-wright, for the Conveyance of our Burdens to what Quarters we pleaſe. They ſupply us with Draw-bridges and Portcullis's: Wine-Preſſes, and Machines for Founderies; together with Cranes, and all thoſe mighty Engines, which diſpatch more Work in an Inſtant, than could formerly be accompliſhed in many Hours.

In a word, we are indebted to the Foreſts for all thoſe Veſſels that move upon the mighty Waters, and reſemble floating Cities, which are wafted, with all their Inhabitants by the Winds, from one End of the Globe to the other.

Chevalier. It was certainly a daring Attempt, to traverſe the Ocean on a Set of Planks, faſtened together. How could ſuch a Thought ever enter into the Imagination of Man?

The Origin of Arts.

Prior. Man obſerved, that the Animals around him were ſupplied with all that was neceſſary to their Exiſtence, from the Moment of their Birth; and were enabled to tranſport themſelves, from Place to Place, with ſurprizing Agility; while he himſelf was conſtrained to move with a ſlow Progreſs, in the painful Purſuit of thoſe Accommodations that were diſperſed at a large Diſtance from him. He beheld other Animals gliding as light as the Wind, in the Regions above him; he ſaw them cleave the Air, without the leaſt Impediment, and tranſport themſelves, from Land to Land, by a Flight that was unobſtructed by interpoſing Seas. Man came into the World deſtitute of all theſe Advantages, but he derived an ample Equivalent from the Faculty of Reaſon, by which he compelled the terreſtrial Animals to direct their Motions for his Service. The Levity of Wood, the Fluctuation of the Waters, and the Force of the Winds, furniſh him with Expedients for procuring Vehicles, by Land and Sea, as light as the Wings of Birds. When theſe Inventions were compleated, he no longer was limited to a ſcanty Portion of Earth, but was able to transfer himſelf wherever he pleaſed. A mutual Intercourſe was then maintained by diſtant Provinces. The Cities, that were ſeated on the Outlets of Rivers, were furniſhed with Importations from foreign Lands, and then tranſmitted them, by their Rivers, to different Parts, and diffuſed them through a whole Kingdom. *Paris* and *Nants* were approximated by theſe Means, and all the Subjects of a mighty State ſeemed to be aſſociated into one City, by Virtue of theſe mutual Communications. They ſoon became intimate; they contributed to the Aid of each other, and frequent Viſits were interchanged betwen them. I may even affirm, that the whole Earth is now become one City, of which the Continents form the different Quarters. Man, ſince the Invention and Improvement of Navigation, can take a Progreſs to each Extremity of the World, in the ſame Manner as the Inhabitants of *Venice* paſs from one Quarter of their City to another, in their Gondolas. He now can travel nine thouſand Leagues, in leſs than the Space of two Years, by the Aid of his Veſſel and Sails, and he arrives at thoſe Regions that have never been viſited by the Birds of his Climate. When Eagles and Falcons attempt to expatiate as far as Man, they are debilitated and loſt in the midſt of their Paſſage.

After this Account of the Advantages we derive from Wood, can we imagine it to be capable of affording us another, which is ſtill more important? This, however, is a real Fact. Wood is the Support of our Lives, ſince it contains the principal, and moſt natural Aliment of Fire, without which we ſhould be incapable of preparing our uſual Food, or forming the greateſt Part of thoſe Conveniencies that are moſt neceſſary for the Preſervation of our Health.

The Sun is the Soul of Nature, ſince he imparts Life and Action to all her Works; but we have no Ability to collect his Beams, in ſuch a Manner as will be ſufficient to prepare our Food for our Tables, or to melt and form our Metals into the Shapes we need; we are unable, by his ſole Miniſtration, to ſoften, and dry, and purify the Portions of Matter we employ. Wood ſupplies the Deficiency of the Sun, in moſt of theſe Operations, and, in Proportion to its Quantity, accommodates Mankind with all the different Degrees of Heat and Flame.

In the Winter-Seaſon, when the Sun only riſes to an inconſiderable Height above our Horizon, the Length of the Nights, in Conjunction with unſalutary Fogs and ſevere Froſts, would be ſufficient to extinguiſh that vital Warmth in Man, which is cheriſhed by the ſolar Beam, did not our Hearths afford us a reviving Heat and Alacrity, of which we ſhould otherwiſe be diveſted in the Abſence of that Luminary.

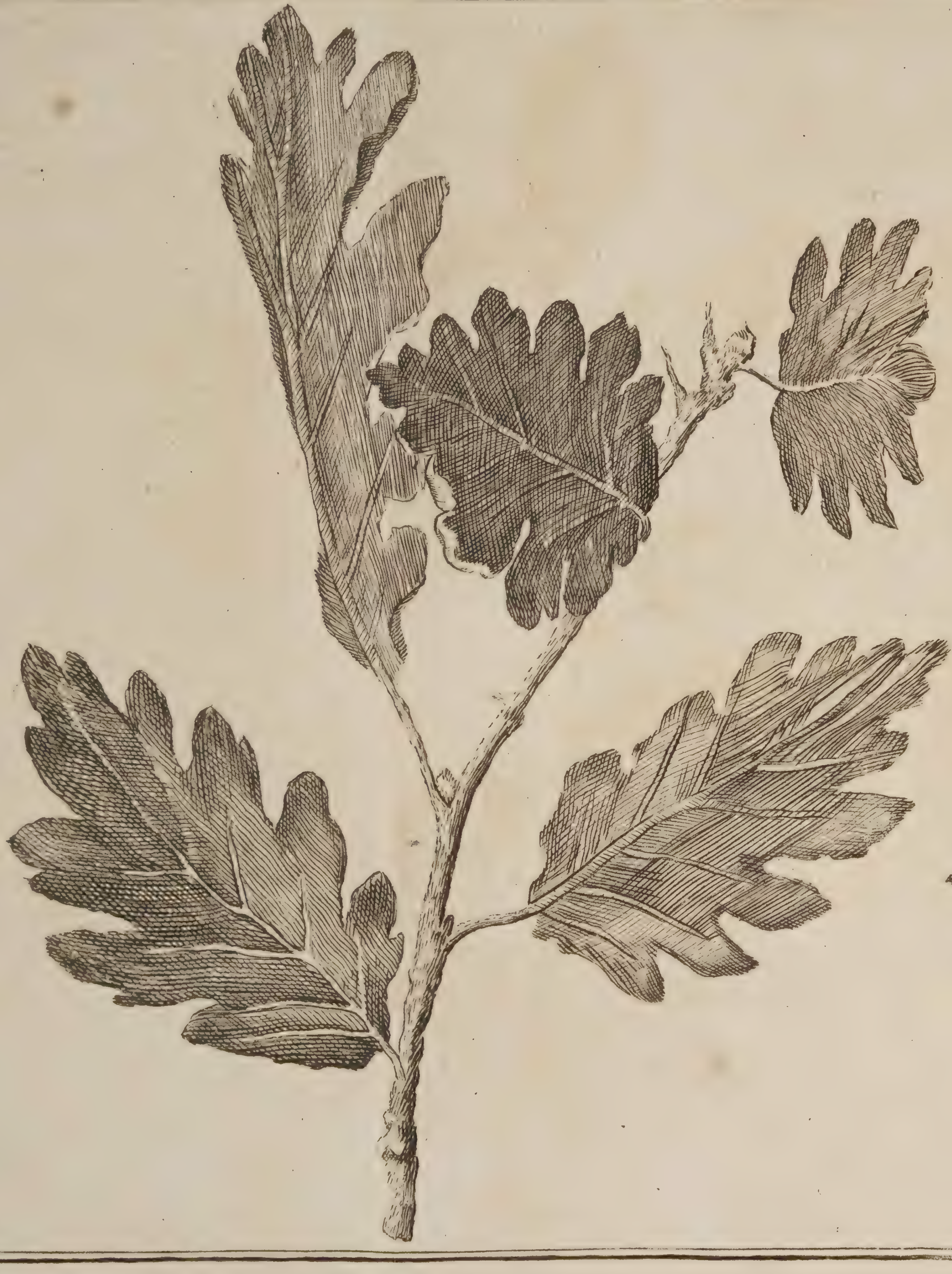
Chevalier. I am now ſenſible how neceſſary the Woods are rendered to our Welfare. The Trees that bend under a Weight of Fruit are not ſo beneficial to us as thoſe we call unfertile. But is this Wood, Sir, which proves of ſuch Importance to us, ſo ſcarce as is commonly repreſented? If we credit an old Prophecy that is generally known, all *France* will one Day periſh for want of Wood. Is there any Foundation for ſuch an Opinion?

Prior. You will eaſily judge of the Falſhood of this Prediction, by the ſhort Hiſtory I will now give you of our Woods.

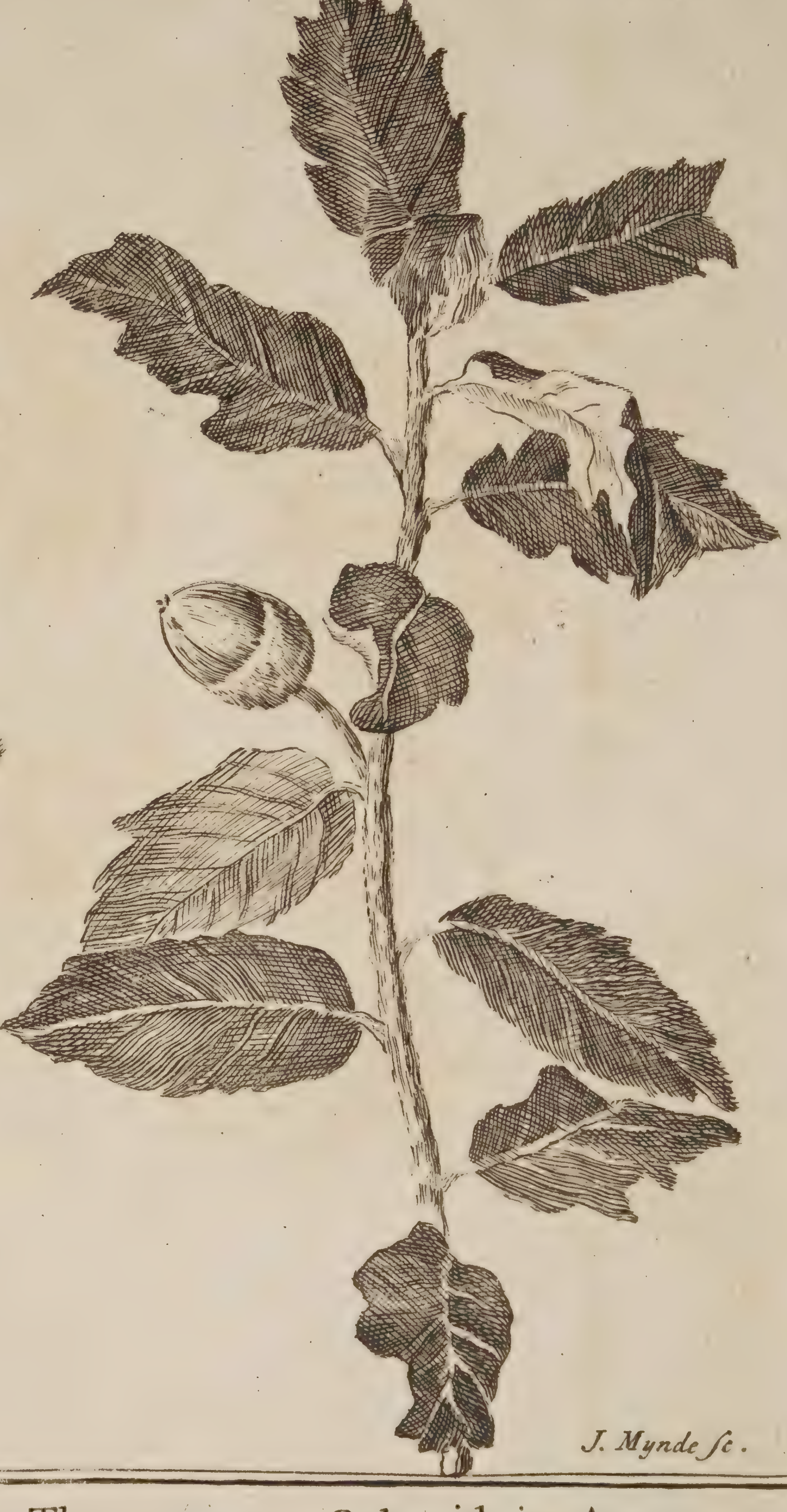
An hiſtorical Account of the Foreſts of *France.*

This precious Subſtance, which is ſo neceſſary to all the Conveniencies of Life, was once extremely plentiful in *France*, and in all the other Countries of *Europe*; and the Inhabitants were even embarraſſed with its Profuſion. In the Times that immediately ſucceeded the Deluge, it is very probable that the Seeds of the Herbs and Plants, which the Waters had ſwept away, and afterwards depoſited on the Earth in a promiſcuous Manner, began to ſhoot

Plate 25 Vol. II page 283



The Foliage of the Oak.



The ever green Oak with its Acorn.

ſhoot forth in all Parts; in conſequence of which, whole Continents have been almoſt covered with their Productions. As the Nations advanced from the *Eaſt* to the Occidental and Northern Regions, they were obliged to cut down the Woods in the Lands they propoſed to inhabit and cultivate. The Extent of the Foreſts in *Germany* and *France* was accordingly contracted, in proportion as thoſe Countries became populous.

Theſe Foreſts were, however, ſo immenſe and unſerviceable in the twelfth Century, that the great Lords granted large Portions of them to the firſt religious Communities, that were deſirous of a Retreat in thoſe Solitudes. The Diſciples of St. *Norbert* and St. *Bernard*, were indefatigable in clearing the Center of the Woods they inhabited, and theſe laborious Solitaries gradually cultivated Tracts of Land that produced extraordinary Revenues out of thoſe deſolate and neglected Thickets, where the Ax of the Woodman had never reſounded till then. It may likewiſe be affirmed to their Honour, that the Portions of Land which had been conſigned to them were of very little Value; and that they themſelves were the Founders of thoſe affluent Fortunes, in the Enjoyment of which their Succeſſors are ſo much envied at preſent.

Thoſe Lords and Communities who poſſeſſed large Tracts of unneceſſary Wood-lands, converted the greateſt Part of them into arable Lands; and the Number of the Inhabitants was augmented, in proportion to the Enlargement of the open Country, and the Increaſe of its Profits. Experience has made it evident, that the more any Land is cultivated, the greater Number of Inhabitants may be ſupported by it; and, on the other hand, the more numerous the Inhabitants prove, the more effectually will the Land be cultivated. The State derived great Advantages from the Lands that were thus cleared; but as the beſt Regulations may ſometimes run into Extremes, and as valuable as the Productions of the Earth may prove, our Woods may be cut down to ſuch a degree, as may hereafter reduce *France* to the Condition of *England*, which has ſuffered its Foreſts to be totally deſtroyed *. Our Circumſtances would then be rendered more deplorable than thoſe of the *Dutch*, who can ſupply their Want of Wood, by burning Turf, which is an unctuous kind of Earth, dug by the Natives from their marſhy Lands. We ſhould likewiſe be more deſtitute than the *Engliſh*, who are furniſhed with vaſt Beds of Coal, which is another Species of fat Earth, impregnated with Sulphur, and other metallic Principles, whoſe Scent, which is ſomething diſagreeable, may be rendered very ſupportable by Cuſtom. We, at laſt, became ſenſible of the fatal Conſequences that were likely to reſult from the Liberty taken by each Individual, in diſpoſing of his Woods in the ſame manner as he acted by other Branches of his Property; and we were guarded by the Wiſdom of our Government, from the neceſſity of having Recourſe to the *Northern* Nations for our Supplies of Wood. Our Kings, who are always attentive to improve the natural Productions of *France*, eſtabliſhed a Set of Conſervators of the Waters and Foreſts, to prevent all arbitrary Devaſtations and Fellings of Wood. They regulated the proper Order and Seaſons for Cutting, and no one was permitted to ſell a ſingle Stem, till the proper Officer had marked the Tree with the Conſervator's Ax. But as it was not thought ſufficient to ſecure the large Growths from the Caprice of private Perſons, ſeveral wiſe Reſervations were made in favour of the Under-Wood, which is uſed for Faggots, Rafters, Laths, and Hoops. As the Timber, which is employed in building Houſes and Ships, is the moſt important Species of all; due Precautions were taken for its Propagation, and ſixteen Standard Trees were ordered to be preſerved on each Acre of Coppice-Land in every Seaſon for Felling; and theſe were not to be cut down without a proper Licenſe from the Conſervator; by which means, the Trees that were ſo preſerved, acquired their due Growth, in Proceſs of Time, and the beſt Seeds were always planted, after each Felling; in order to prevent the Exuberancy of bad Wood.

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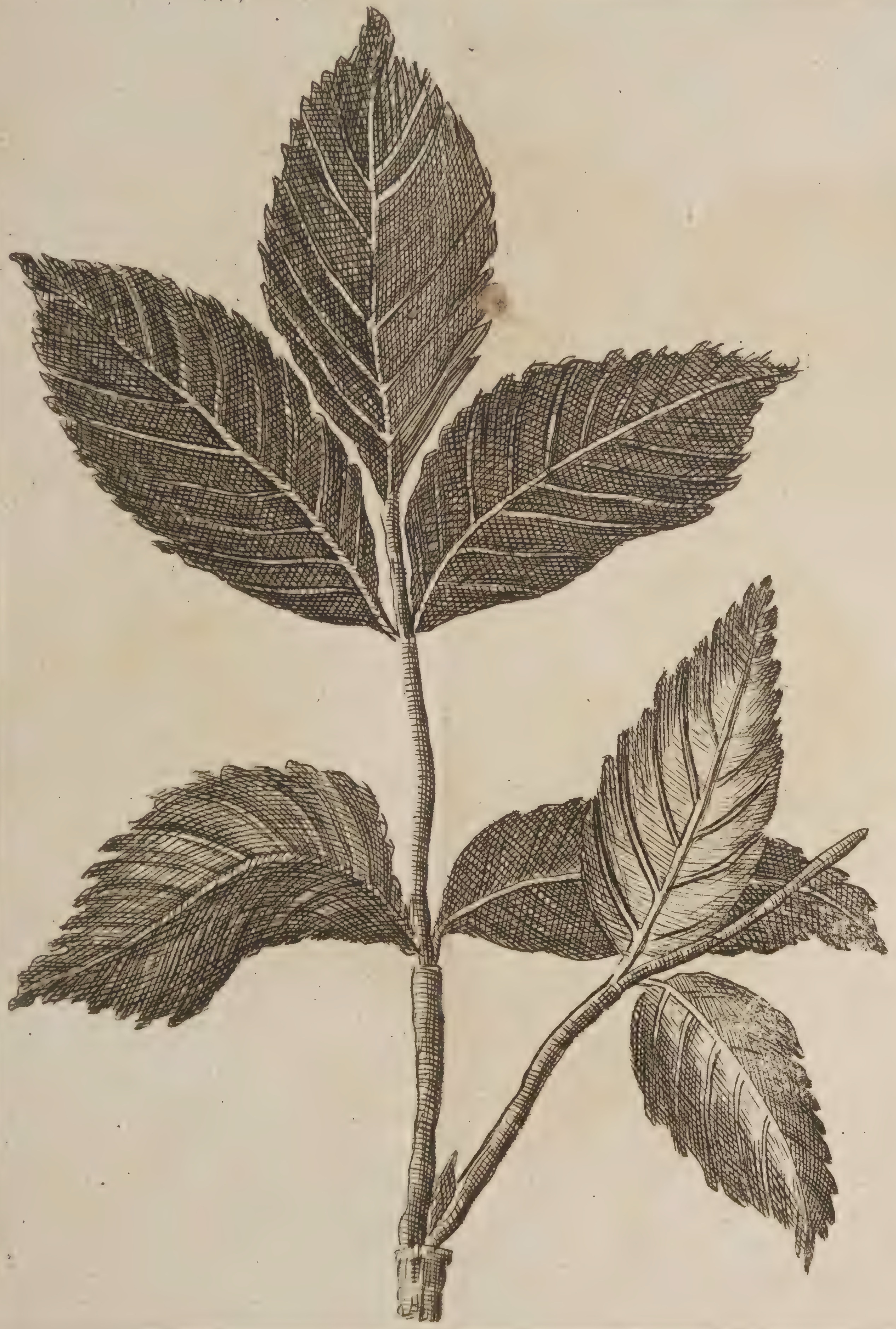
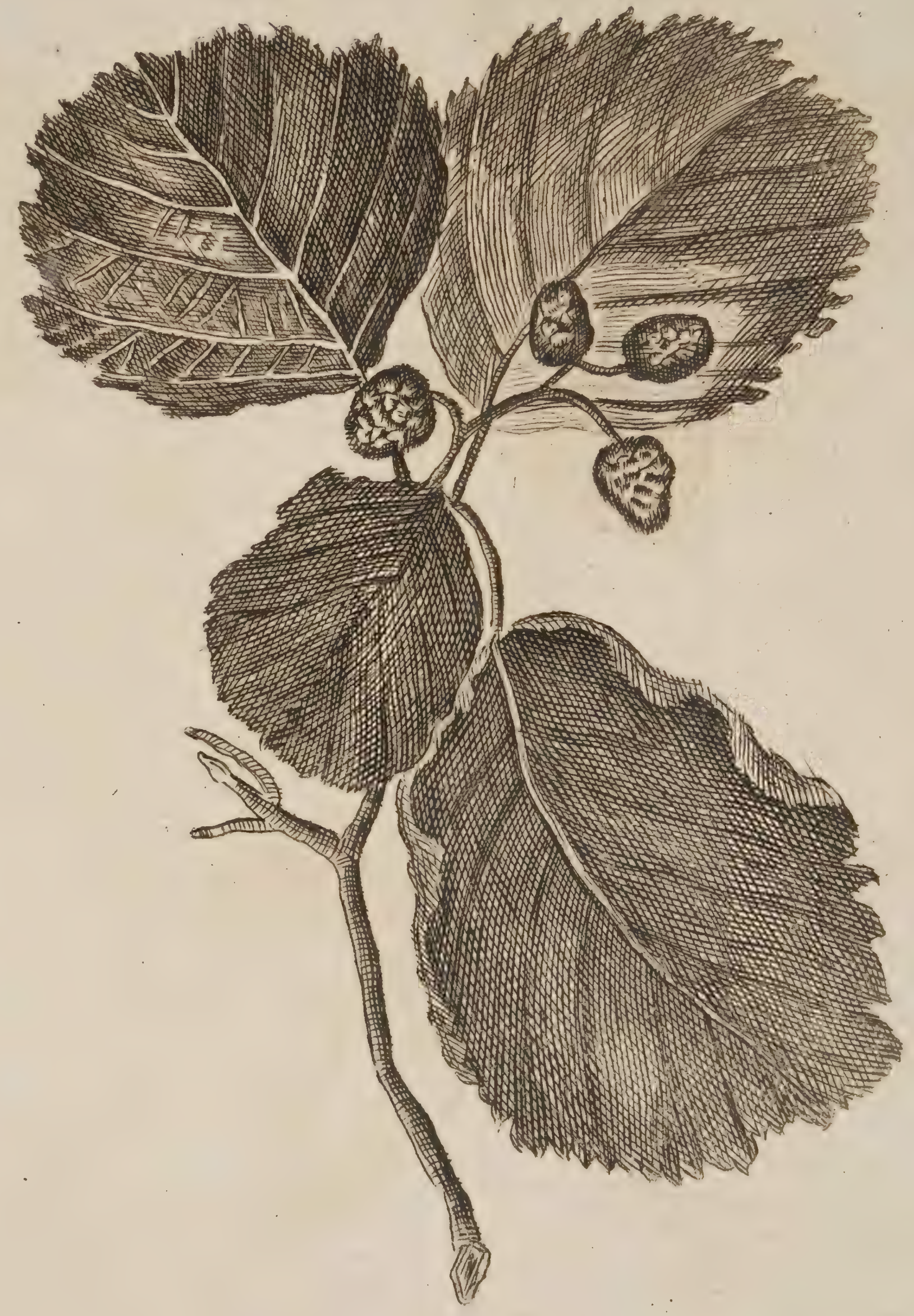
* Our ingenious Author has been a little too inconſiderate in this Aſſertion. For the Foreſts which are ſtill remaining in *England*, are ſufficient to ſecure her the Empire of the Ocean againſt all Competitors for many Ages.

In conſequence of the ſame Regulation, ten Trees are to be left on each Acre of Land, whenever the full-grown Timber is felled.

All private Perſons were likewiſe prohibited from diſpoſing of their Standard-Trees, till they had continued forty Years in the Coppice, and the full Growths were to be a hundred and twenty Years old; by which means, a ſuf-



The Aſh Tree



The Alder Tree

ficient Quantity of Wood is always ſecured for Fuel and Building.

The Precautions of our Government were extended yet farther. When the Trees were crowded together in the Woods, they ſhot forth but few Branches, while their Trunks ſwelled into a large Subſtance, and roſe to a great Height, becauſe they enjoyed a free Circulation of Air only on their Tops. Perſons of Judgment were ſenſible, that when ſome Part of a Wood ſhould happen to be felled, the Stems of the remaining Trees would acquire but a very moderate Circumference and Height, when they grew up to Standards, becauſe their lateral Branches would ſhoot into the vacant Spaces, which would then be afforded them by the Wood already felled. They likewiſe foreſaw, that the ſame Stems would be more expoſed to the injurious Effects of Cold, in the open Air, than they were in the cloſer Growth of the Thicket; and that thoſe Trees, which ſurvived the Rigours of the Froſt, would fall by the Ax of the Woodman, who knew no Law more cogent than his own Neceſſities. In order, therefore, to preſerve and multiply the Timber-Trees, in a more effectual manner, *Lewis* the XIVth commanded a Reſervation to be made of more than a fourth Parts of thoſe Foreſt that were poſſeſſed by the Church, or any eccleſiaſtical Community, as a Property in *Mortmain*. This reſerved Portion is now become ſo ſacred, as to be exempted from the Authority of the Conſervator himſelf; and the Trees are not to be cut down, without an expreſs Commiſſion from the Council, who are to be ſatisfied of the Neceſſity for that Proceeding; and a Licence of this Nature is never granted, but when the Plantation is in Danger of periſhing by Age.

The Court, the Nobility, and whole Cities have added many laudable Examples to theſe judicious Regulations. Our great Roads begin to be bordered with long Rows of Elms, and other Trees, which, in all Probability, will prove a beneficial Reſource in ſome future Emergency. The Traveller, while he paſſes through large Provinces, may enjoy the branching Verdure that blooms over his Head, without intercepting the amiable Landſcape of the Country from his View. A Variety of riſing Avenues conduct the Eye to ſtately Caſtles and large Towns; and *France* ſeems within the laſt twenty Years, to be changed into a Garden of Pleaſure.

Chevalier. You have relieved me, Sir, from my Apprehenſions of a Scarcity of Wood; but in order to preſerve it more effectually, I think we ought to practice the Reverſe of the former Method. Our Anceſtors converted uſeleſs Foreſts into arable Land; but it would now be proper to convert uſeleſs Lands into Foreſts. I know ſome Soils in which Buck-Wheat is ſown but once in five or ſix Years.

Prior. The Method you recommend, Sir, has been practiſed by ſeveral Perſons with great Succeſs, and is one of the beſt Expedients for the Melioration of bad Soils, and eſpecially ſuch as lie waſte, and are very remote.

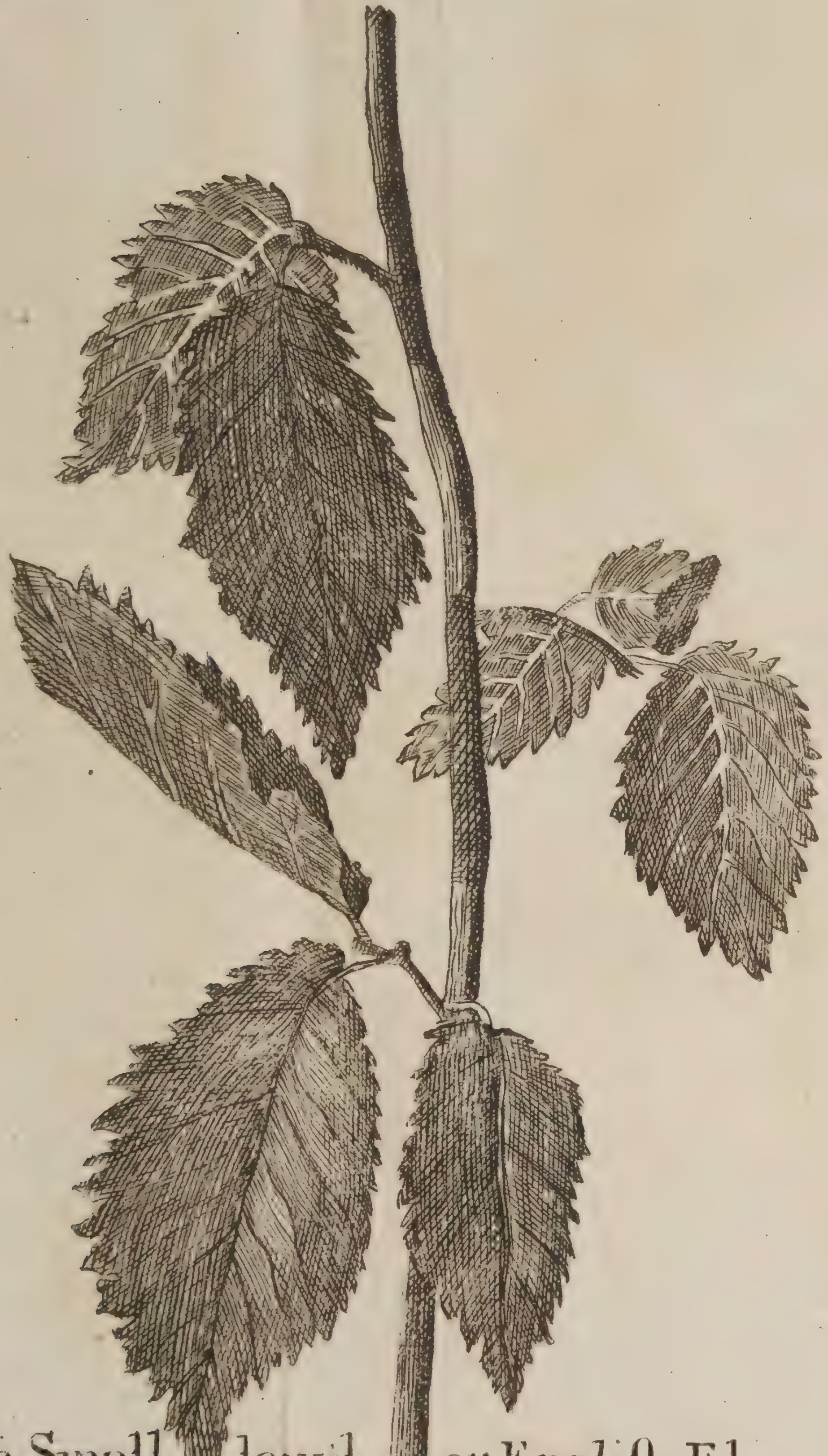
Chevalier. But we muſt wait many Years before we can derive any Benefit from theſe new Plantations.

Prior. A provident Father, who is all his Life-time induſtrious to make a decent Proviſion for his Children, will eaſily prevail on himſelf to reſign the inconſiderable Profits of a dry and ſtubborn Piece of Land for a few Years, in order to ſecure to himſelf and his Deſcendants the Enjoyment of a better Revenue.

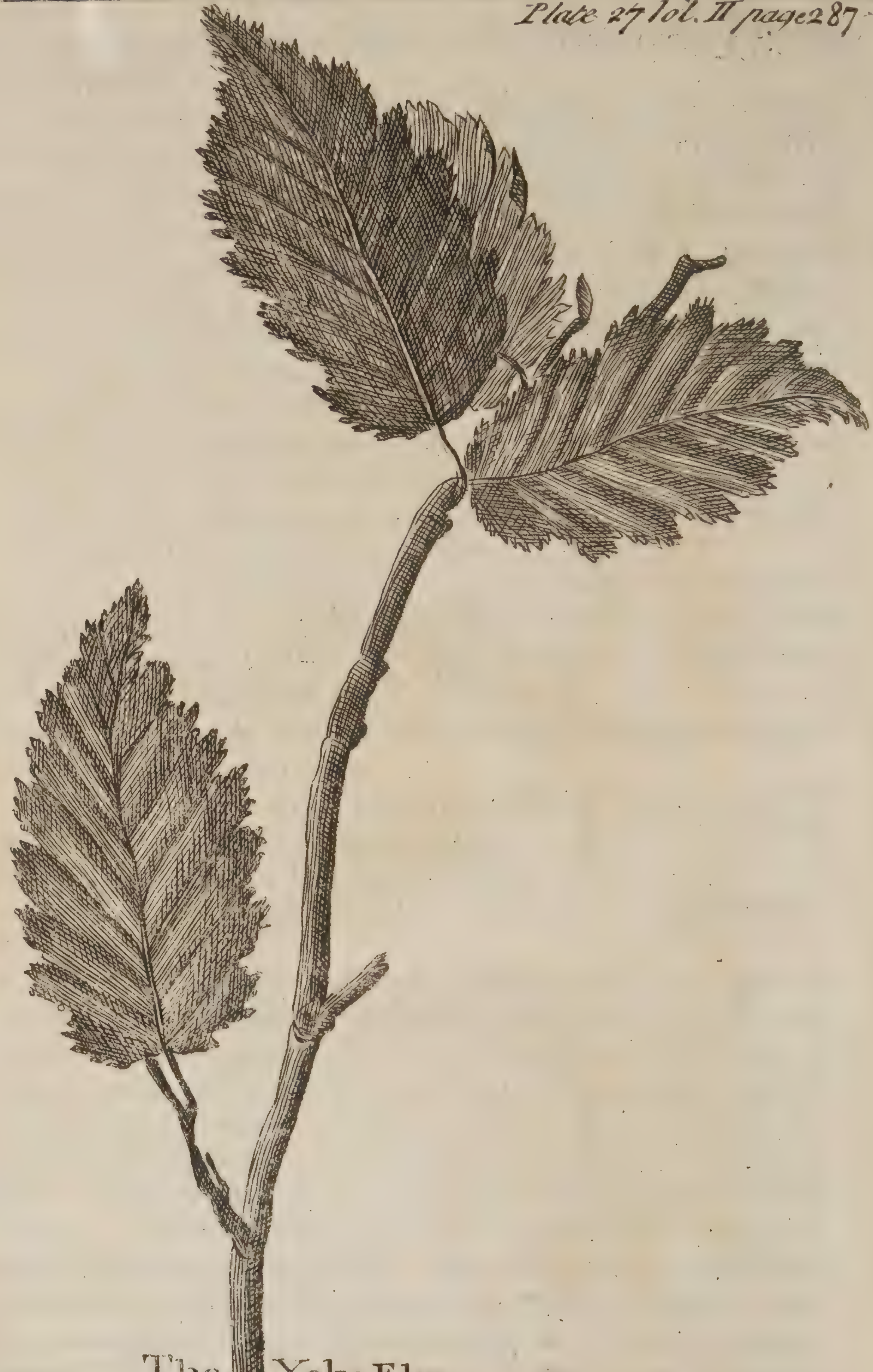
Chevalier. The Plantation of a Wood ſeems to be attended with another Inconveniency. A good Soil is never appropriated to this Uſe; is it poſſible, therefore, to rear a Growth of Trees on thoſe Lands which are unproductive of Corn?

Prior. There is no Soil ſo very barren and dry, as to be incapable of affording ſome particular Species of Wood, which is always profitable to the Proprietor. If a Tract of Land ſhould be favourable to no Plants but Aſpen-Trees, or a Growth of Broom, which is very rarely the Caſe; the Profits will, however, be much more conſiderable than thoſe which ariſe from a little Buck-Wheat once in five Years. The Productions of the Soil would always ſupply the neighbouring Inhabitants with Fuel, and would likewiſe afford a ſalutary Refeſhment to Flocks of Sheep, who cure themſelves of their Diſtempers, by nibbling the pointed Spires of Broom. The Scarcity of Wood in any particular Country, the Neighbourhod of a good Town, and likewiſe of a commodious River for floating the Wood, are Circumſtances that often concur in the ſame Situation, and ought to be conſidered by the Proprietors of Land, as ſo many prevailing

Plate 27 Vol. II page 287



The Small leav'd or Engliſh Elm



The Yoke Elm

prevailing Motives for planting; and they may be confident of Succeſs from innumerable Examples of the ſame Nature.

The whole Affair conſiſts in the firſt Culture, and the Choice of ſuch Plants as correſpond with the Qualities of the Soils. Thoſe Trees that appear from Time to Time in publick Roads, and other Parts of the drieſt Countries, are ſo many Sketches of what the Soil is capable of producing; and they ſeem to reproach the Inhabitants with the melancholy Aſpect and Nakedneſs of their Mother-Earth.

Chevalier. What Methods are to be obſerved, when we begin to plant a Wood?

The Manner of Planting a Wood.

Prior. The firſt neceſſary Labour will be to ſink a deep Trench round the Land, where the intended Plantation is to be made; and to throw the Earth of the Trench upon the Edges of the Ground it incloſes. If this Precaution be neglected, your Work will be entirely deſtroyed by intruding Cattle. You may either plant Seed or young Trees; the latter of which will be ſooneſt productive of Wood; but they will likewiſe create a larger Expence. The Seeds will be more tardy in their Productions, but the Charge will be much leſs, and the Wood will be more vigorous and durable.

An Acre of Ground, containing an hundred Rods or Perches, each of which is equal to twenty-two Feet, will require fourteen thouſand Plants, which are commonly ſold for about Twelve-Pence a Thouſand. Theſe muſt be purchaſed of ſuch Perſons as have Woods of their own; no one being permitted to take them either from the King's Foreſts, or from thoſe that belong to eccleſiaſtic Communities; becauſe the State will never conſent to the Diminution of this important Property, and no young Tree is ever to be removed from thoſe Plantations, without an expreſs Permiſſion, which muſt be authoriſed by ſome emergent Occaſion. It will be proper to chuſe ſuch young Trees for your Plantation, as have a large Spread of Roots, and have been newly taken out of the Ground; becauſe a Delay, even of two Days, is ſufficient to deſtroy them in great Numbers.

The Plough prepares the Land for the young Plant at the leaſt Expence. When a Furrow has been opened, two Perſons walk by the Side of the Horſes, and place the Shoots in the Furrow, at the Diſtance of a few Feet from each other. The Earth-Board then covers them with the Soil that is ſcooped out of a new Furrow. Seventy-five Perches of Land may be planted in one Day, for three Livres and fifteen Sols; the uſual Price for a whole Acre, being five Livres. Each of the two Men, who plant the young Trees, will be ſatisfied with twelve Pence, for a Day's Labour. The Plantation may likewiſe be made in Trenches, or long Channels; but this Method is more tedious and expenſive than the other.

In order to plant the Maſt of the Beech, and the Seeds of the Elm, with Succeſs, the Soil ſhould be broken into as minute Parts as poſſible; becauſe the Buds of theſe Plants are extremely delicate, and never ſhoot forth with the Vigour of Acorns, which need only be caſt into a Furrow that has been opened by the Plough. The Seeds of the Elm may be gathered up in the Fields; the Beech-Maſt is ſold, in ſeveral Places, for Ten-pence a Buſhel, ſix of which will ſuffice for one Acre; but the ſame Quantity of Ground will require ſixteen Buſhels of Acorns, which are commonly ſold for five Pence a Buſhel.

Before you plant your Seeds, either in Furrows, or in Holes opened at a regular Diſtance from each other, it will be proper to let them bud forth in a Bed of Sand, by which Means you may be certain of planting only ſuch good Seeds as will proſper.

The young Plants, which ſpring from theſe Seeds, will require ſome Attention for the firſt Years, and they will be greatly forwarded by proper Refreſhments of Water in dry Seaſons; they ſhould likewiſe be thinned, when they are ſo numerous as to defraud each other of their mutual Nouriſhment; the Earth ſhould alſo be ſtirred, when it grows too compact; and Care ought to be taken to clear away the Weeds, which choak the Growth of the tender Plantation.

When the Trees have been in the Ground for the Space of ten Years, a ſingle Acre will furniſh you with eight or nine hundred, or even a Thouſand Faggots, at the firſt Lopping; and when twenty Years are expired, the ſame Quantity of Land will produce a third more. But if you let the Wood grow untouched for about twenty-four Years, every Acre will yield you ten or a dozen Cords of Wood *, and a thouſand Faggots, excluſive of the white Wood, which may be ſhaped into Poles, and Pannels, and Rafters, for thatched Roofs. I omit the reſerved Growth of Standards, which will afterwards furniſh all the Pieces neceſſary to form thoſe Roofs that are to be covered with Tiles. Experience has made it evident, that each Acre of ſuch Wood-land, will yield its Owner fifty, ſixty, and even ſeventy Livres, every ten Years. The Expence of ſinking the Trench, and planting the Trees, may, perhaps, amount to ten Crowns. If the Ground, which is converted into Wood-land, be farmed at twenty-five Pence an Acre; the Sum neceſſary to be advanced for Planting, and the Loſs ſuſtained by the Diſcontinuance of the yearly Income for ten Years, will be repaid with Uſury by the firſt Lopping, and much more amply by all the others.

If, inſtead of a Coppice, you are deſirous of lofty Trees, a Growth of ten or a dozen Years may be gained by planting fine young Trees, ſix or ſeven Feet in Height, and four or five Inches in Diameter, at the Diſtance of a Fathom from each other, or ſomething more; and it will be proper to ſecure them with Stakes, againſt the Violence of the Winds, and the Frictions of Beaſts; but the Expence of a Trench will be altogether unneceſſary.

Coppice-Wood is cut but once in nine Years; but if you ſuffer it to remain untouched for twenty-ſeven Years, this Wood will begin to ſhoot into a high Growth, which will be fully compleated in the Space of ſixty Years.

Some Perſons are betrayed into a great Miſtake, in this kind of Melioration; by deſiring to raiſe thoſe Plants which they think moſt conſiſtent with their Intereſt to obtain, inſtead of chuſing ſuch as the Soil is moſt capable of producing; but this dangerous Inadvertency may be eaſily avoided, becauſe we may ſoon know what kind of Wood will be naturally produced by each Soil, and what particular Soil is moſt coveted by each Species of Wood.

The Oak.

The Oak, which afford ſuch uſeful Materials for Building, never proſpers in a ſandy Soil, but thrives beſt either in Clay, or in ſtony Ground.

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* A *French* Cord of Wood is equal to two Loads.

The Aſh.

The Aſh, which is employed in the Fo
mation of Ploughs and Axle-Trees, Oa
and Poles, Vine-Props, and Variety
other Inſtruments, is always unſucceſsful in Soils that a
either hard, or cold; or in ſuch as are compoſed of Cla
or Chalk; but it acquires a ſudden Growth, and thrive
to Admiration, in a Plain of light Earth, of a modera
Depth.

The Service-Tree.

The Service-Tree, which is univerſall
eſteemed for the Solidity of its Wood, d
lights in a cold Soil; provided it be ſubſta
tial and nouriſhing. Its Leaves reſemb
thoſe of the Beech; but their lower Surface has a whit
Hue.

The Cornel-Tree.

The Cornel-Tree, whoſe Wood is almo
as hard as that of the Service-Tree, riſes i
every Soil, and is ſucceſsful even in ſhad
Situations. The Fruits of both theſe Tre
are agreeable, when they have attained their due M
turity.

The Beech and Yoke-Elm.

The Beech and the Yoke-Elm, which a
ford ſuch a pleaſing Fuel, and are ſo uſef
in forming the Keel, as well as the interi
Parts of Ships, are as proſperous as we ca
deſire, in hard, as well as in mountaino
and chalky Lands. A very palatable Oil is extracted fro
the Maſt of the Beech.

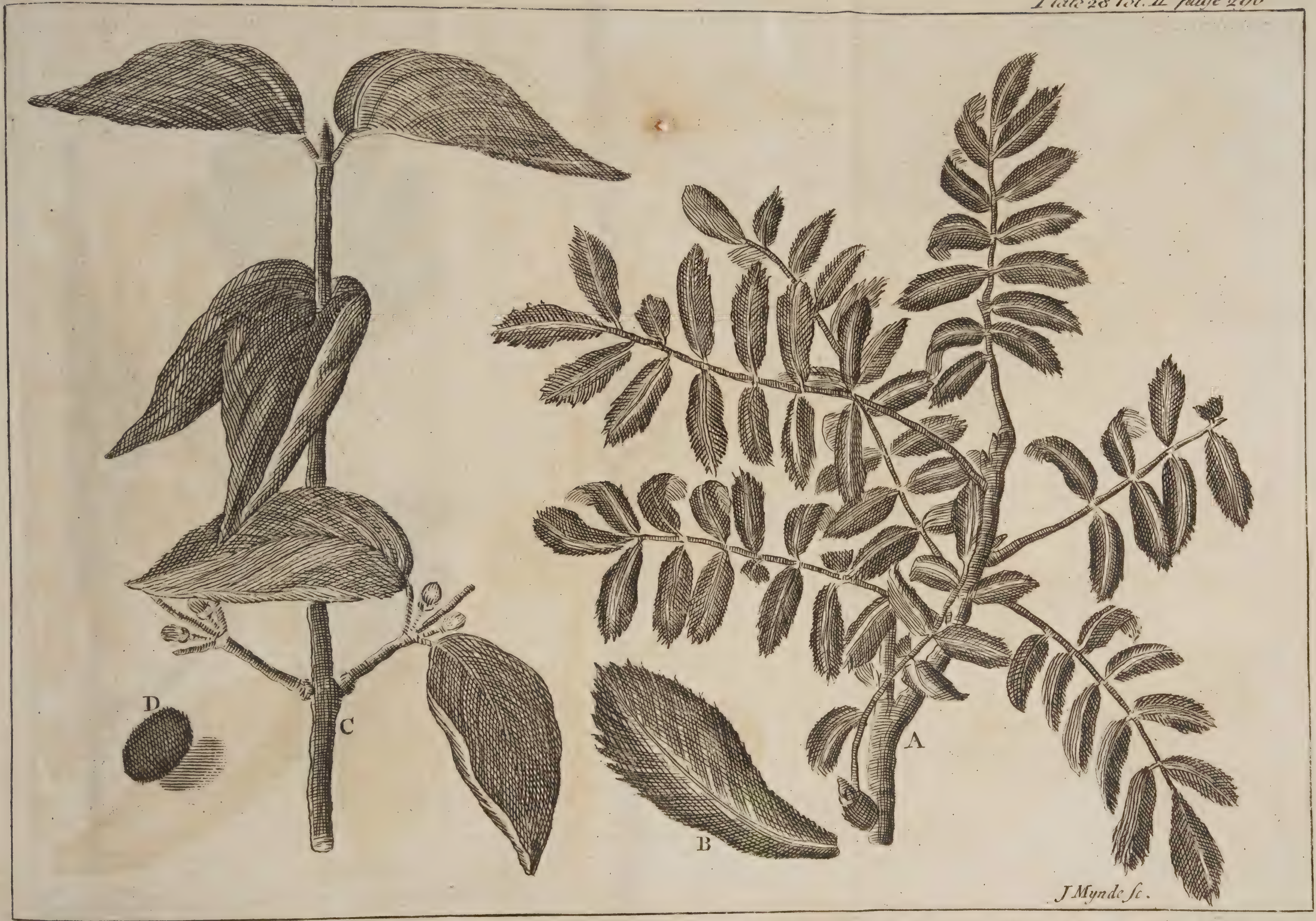
The Elm.

The Elm, which is proper for Pip
and Mills, and likewiſe for Pumps, an
thoſe Parts of Ships which are always im
merſed in Water; and is thought preferable to any oth
Tree, for thoſe Works that are formed by the Wain-wrigh
is contented with a moveable Soil, if it be properly pr
pared. Thoſe who are deſirous of ſeeing their Elm
branch into a fine Head, plant them at a Diſtance of twent
Feet from each other.

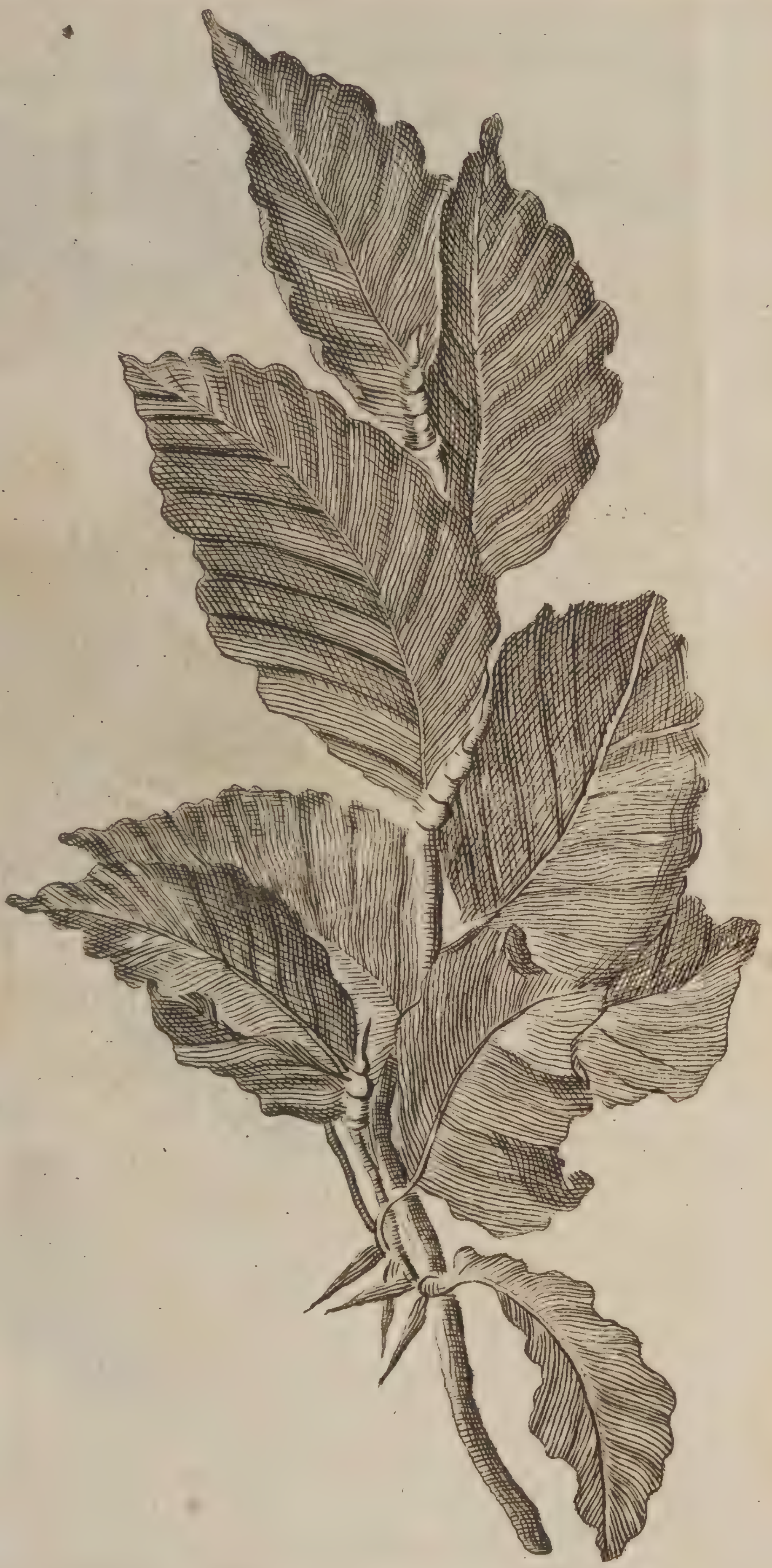
The Plane-Tree.

The Plane-Tree, whoſe Wood is as ſtro
and compact as that of the Beech, deligh
in level Lands, and Situations of a modera
Humidity.

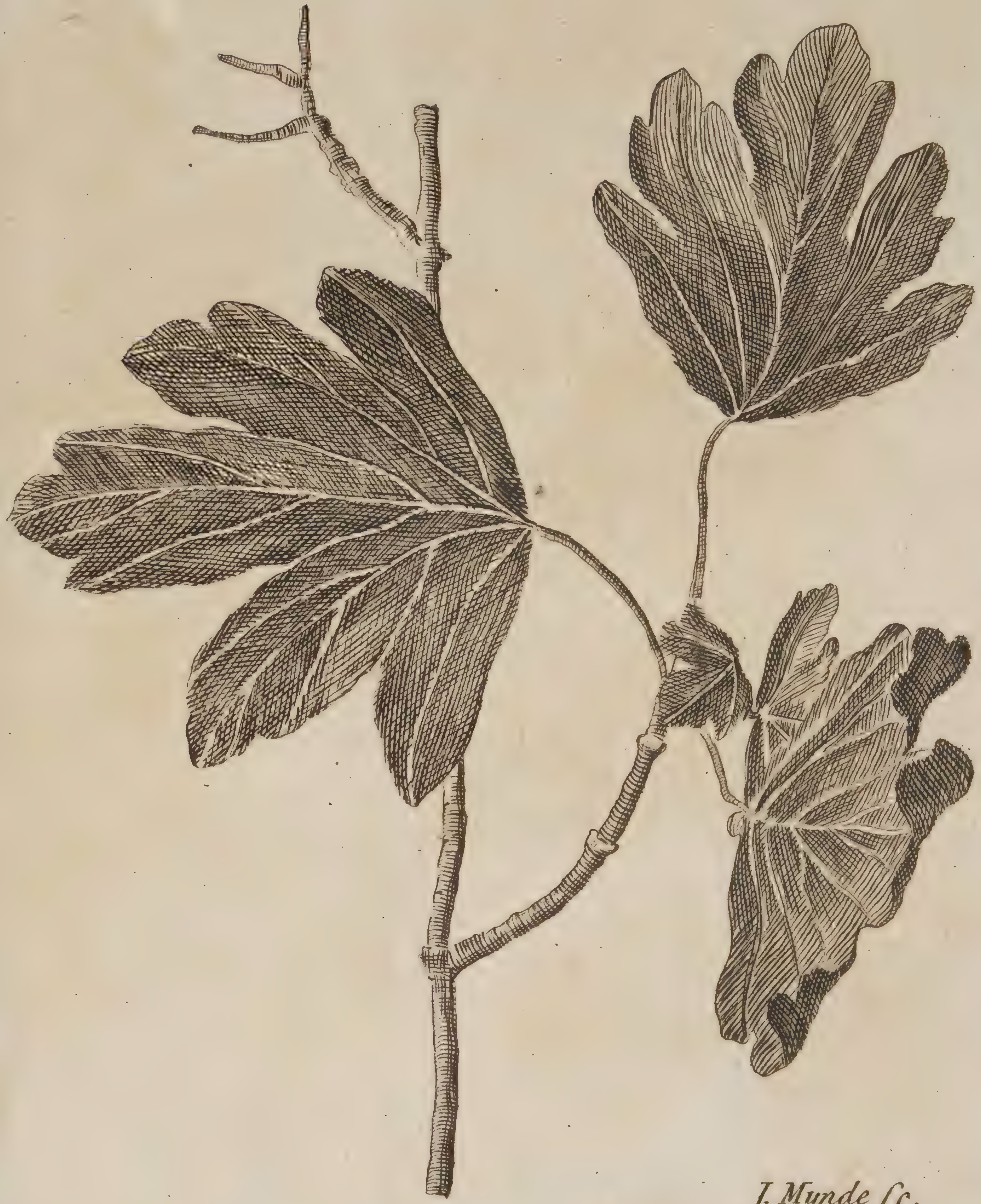
Th



A. The Foliage of the Service Tree. B. The natural Dimenſions of the Leaf. C. The Cornel Tree D. The Cornel Berry.



The beech Tree.



The leſser Maple

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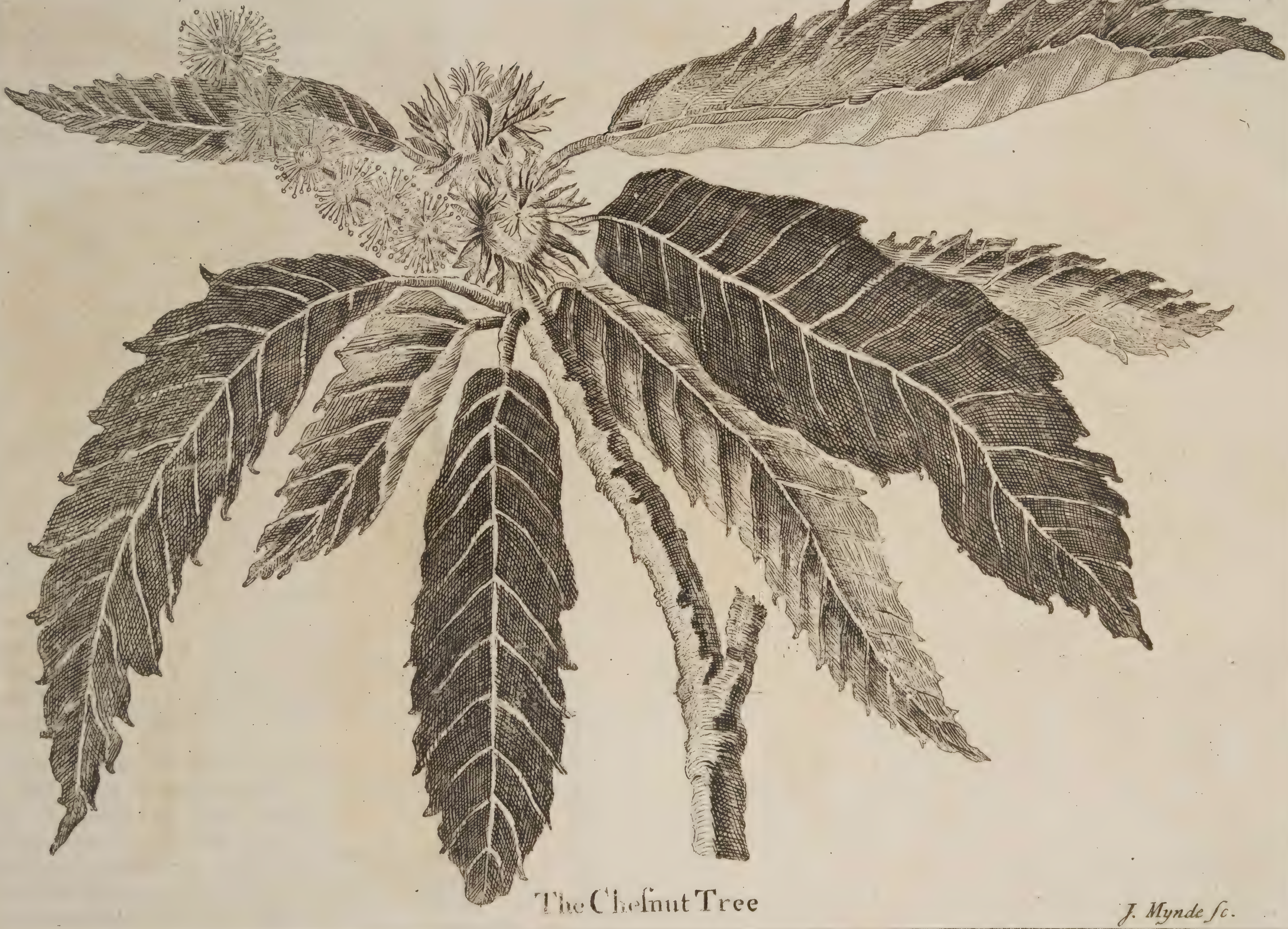

The Cheſnut Tree

J. Mynde ſc.

The Cheſnut-Tree.

The Cheſnut-Tree was formerly very common and uſeful in *France*; and Perſons of Curioſity and Taſte admire the Beauty and Elegance, as well as the undecaying Solidity of this Wood, in the Joinery Work of moſt of our great Churches. This Species, which is almoſt exhauſted at preſent, proſpers in the drieſt and moſt uſeleſs Soils, remote from Marſhes and all watry Lands; and it riſes on the *Northern* Declivity of Hills and Mountains. It accommodates itſelf to all Sorts of ſtony Soils, and pierces into the moſt impliant Maſſes of Earth. The Goodneſs of its Fruits; the Beauty of its Leaves, which are ſeldom injured by the Ravages of Inſects; the fine Qualities of its Wood, which render it an excellent Material in great Buildings; the Promptitude of its Growth, and the ſurpriſing Facility, with which it may be multiplied in every Soil; have already induced ſeveral Perſons to raiſe Plantations of this Tree, on thoſe Tracts of their Lands as are moſt uſeleſs and unfertil; and we may now hope to ſee this amiable Tree revive in *France*, from whoſe Soil it has been extirpated, in a great meaſure, for many Years. The Elm, which is almoſt an utter Stranger to our Foreſts, was not propagated till the Reign of *Francis* the firſt. Several Perſons have ventured to plant it in various Parcels of Land, without any previous Proof of the Soil's Conformity to the Nature of this Tree; and they have always been very ſucceſsful. We, therefore, have much more Reaſon to plant the Cheſnut-Tree in our worſt Lands, where we are certain they formerly proſpered; and we may be ſtill more confident of Succeſs, if we only caſt our Eyes on the Lands of *Limoſin*, which are hardly capable of producing Buck-Wheat and Lentils; and yet the Cheſnut-Tree thrives there to ſuch a degree, as conſtitutes the chief Riches of that Country.

The Walnut-Tree.

The Walnut-Tree, whoſe uſeful Fruit and Wood are univerſally known, delights in a ſtrong Soil. It plunges its Roots into the Earth in a perpendicular Deſcent, like thoſe of the Oak, and it ſometimes thrives in the moſt chalky Lands. It will be proper to plant theſe Trees at the diſtance of thirty, or even forty Feet from each other, and remote

from

from high Roads, to prevent injurious Viſits from Paſſengers.

The Hazle. Tree.

The Hazle Tree will ſucceed, without the leaſt difficulty, in a light and ſandy Soil; it is likewiſe a very profitable Tree in the Coppice, where, in the ſpace of ten Years, it will furniſh a large Quantity of Hoops, and Faggots, and Hop-poles, beſides a Number of other Conveniencies.

The Linden, or Lime-Tree.

The Lime-Tree proſpers in moſt Soils, but thrives beſt in fat Lands; I, however, have ſeen Trees of this Species that have been perfectly beautiful, though they grew in a Maſs of Sand that was ſix Feet in depth. The Wood of this Tree is not proper for large Works, but the Bark is very uſeful to Rope-Makers.

The Birch-Tree.

The Birch-Tree will adapt itſelf to all Situations and Expoſiures.

The Willow.

The Poplar-Tree.

The Alder.

Marſhy Soils, and even ſuch Land as are entirely covered with Water, and which frequently appear to be the Seats of Sterility, will produce thoſe particular Trees, which may properly be called amphibious, becauſe they ſeem to ſpring, partly from the Earth, and partly from the Water; as the Common and Dwarf Willows, for inſtance, which prove ſuch a uſeful Ornament to thoſe Edges of Land that are abandoned by Rivers. To this Claſs we may likewiſe refer the white, as well as the black Poplar, and the Aſpen, which is another Species of the Poplar. All theſe Trees delight in Humidity, which is likewiſe extremely favourable to the Alder. This laſt Tree, and alſo the Oſier, are the beſt Productions of marſhy Lands. The Alder is formed into Pipes; and it likewiſe makes excellent Piles for Rivers. Its Wood is very durable under Water, but ſoon decays in the open Air.

The Box-Tree.

If any particular Soil ſhould happen to prove unfavourable to theſe uſeful Trees, which is almoſt impoſſible in our Climate; it may, at leaſt, be planted with Box, which rears its Head in the coldeſt Situations. The Wood of this Tree is formed into Spoons, Combs, and Boxes; and it likewiſe furniſhes

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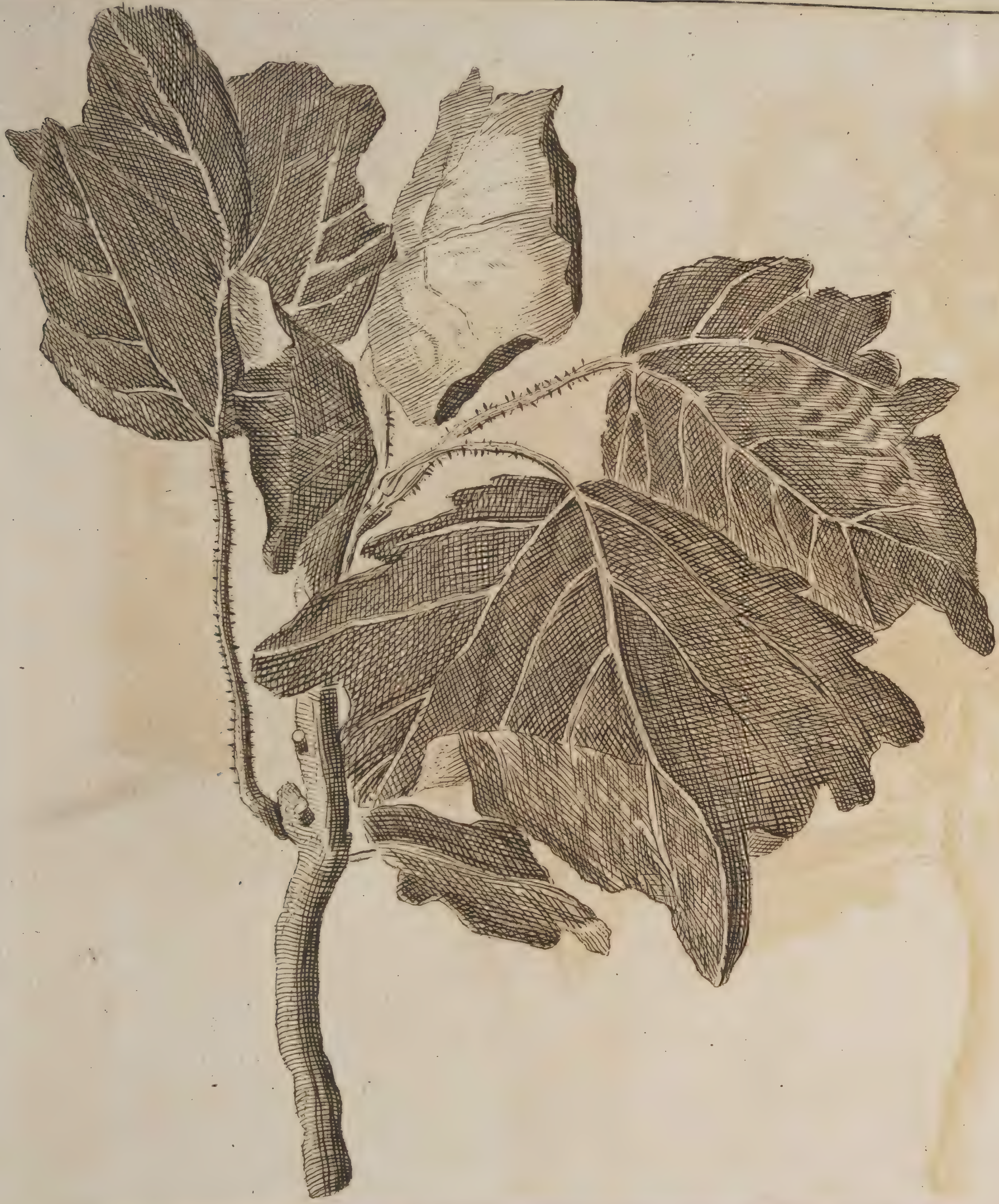
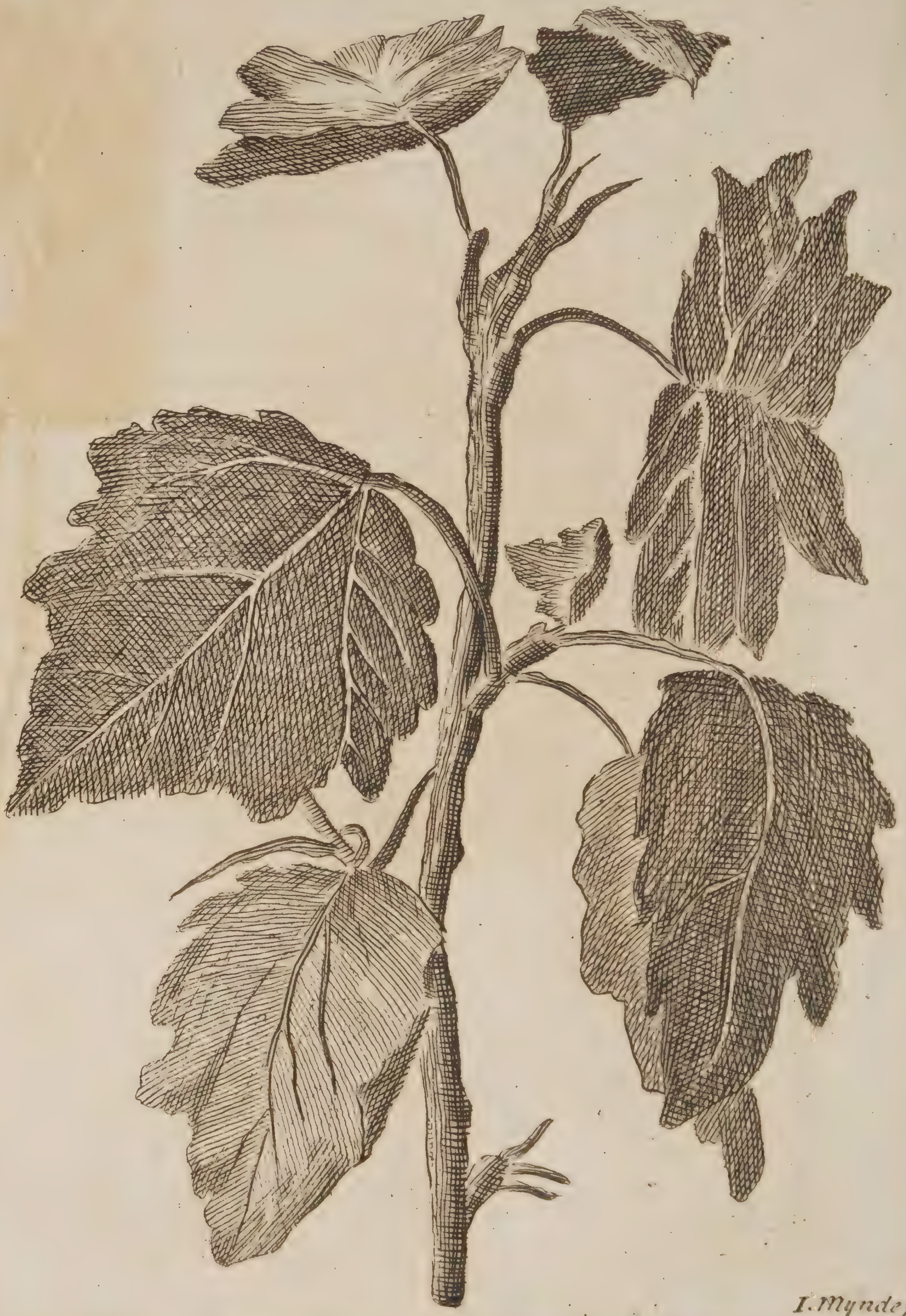


The Foliage of the Aſpin Tree.



I. Mynde ſc.

The Foliage of the Poplar Tree.

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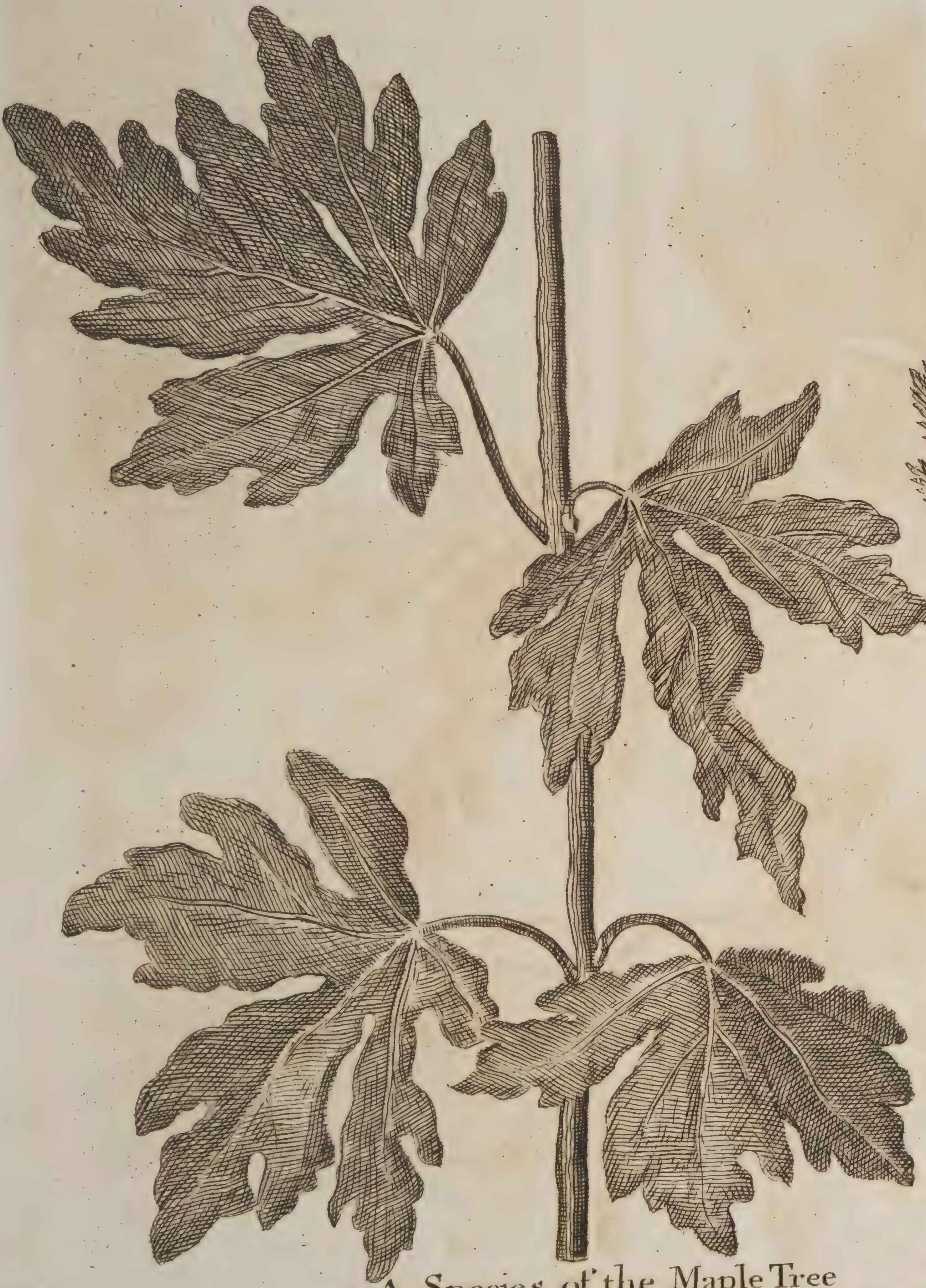
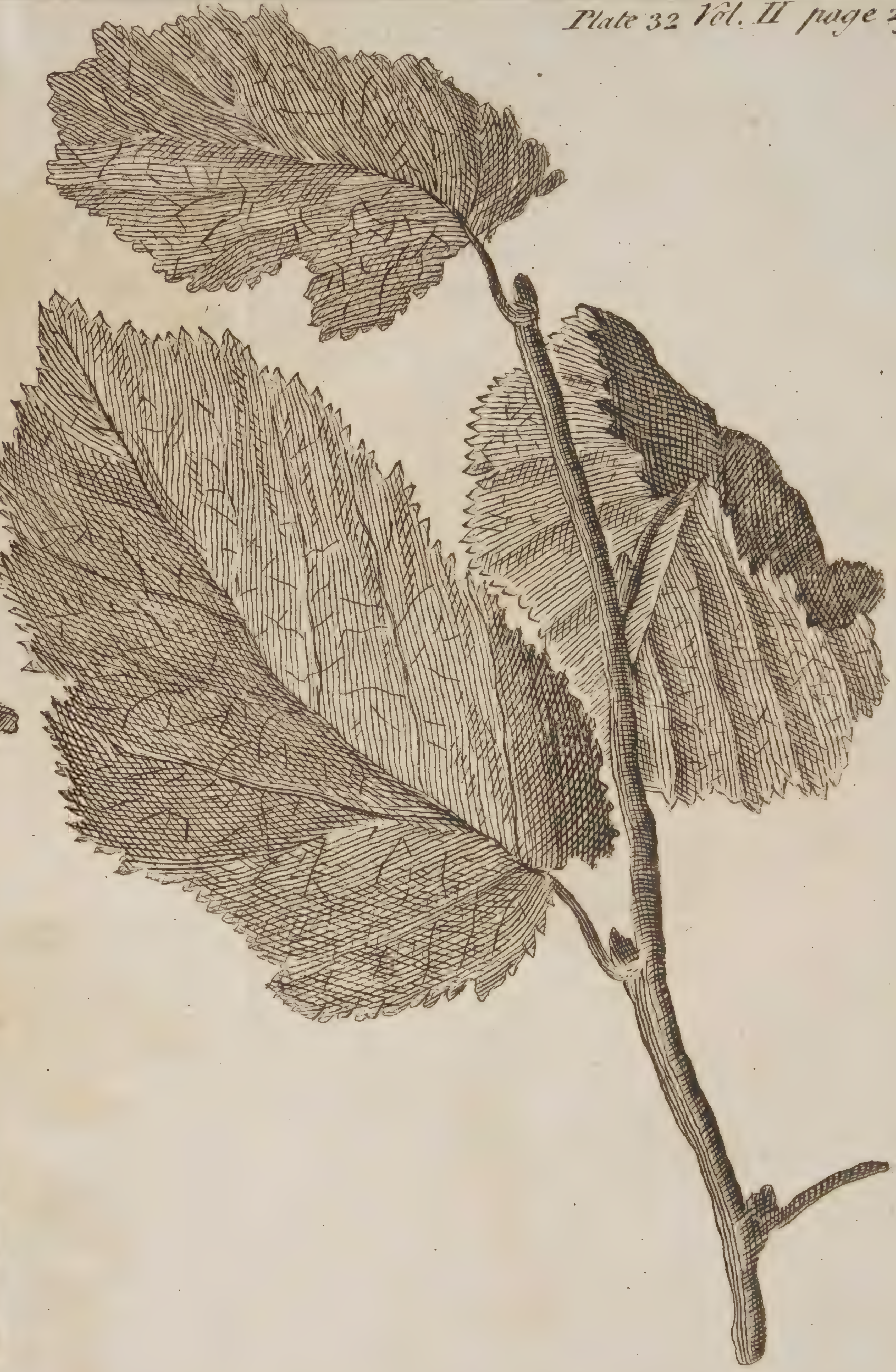


A Species of the Maple Tree



The Haſle or Filberd Tree

J. Mynde ſc.

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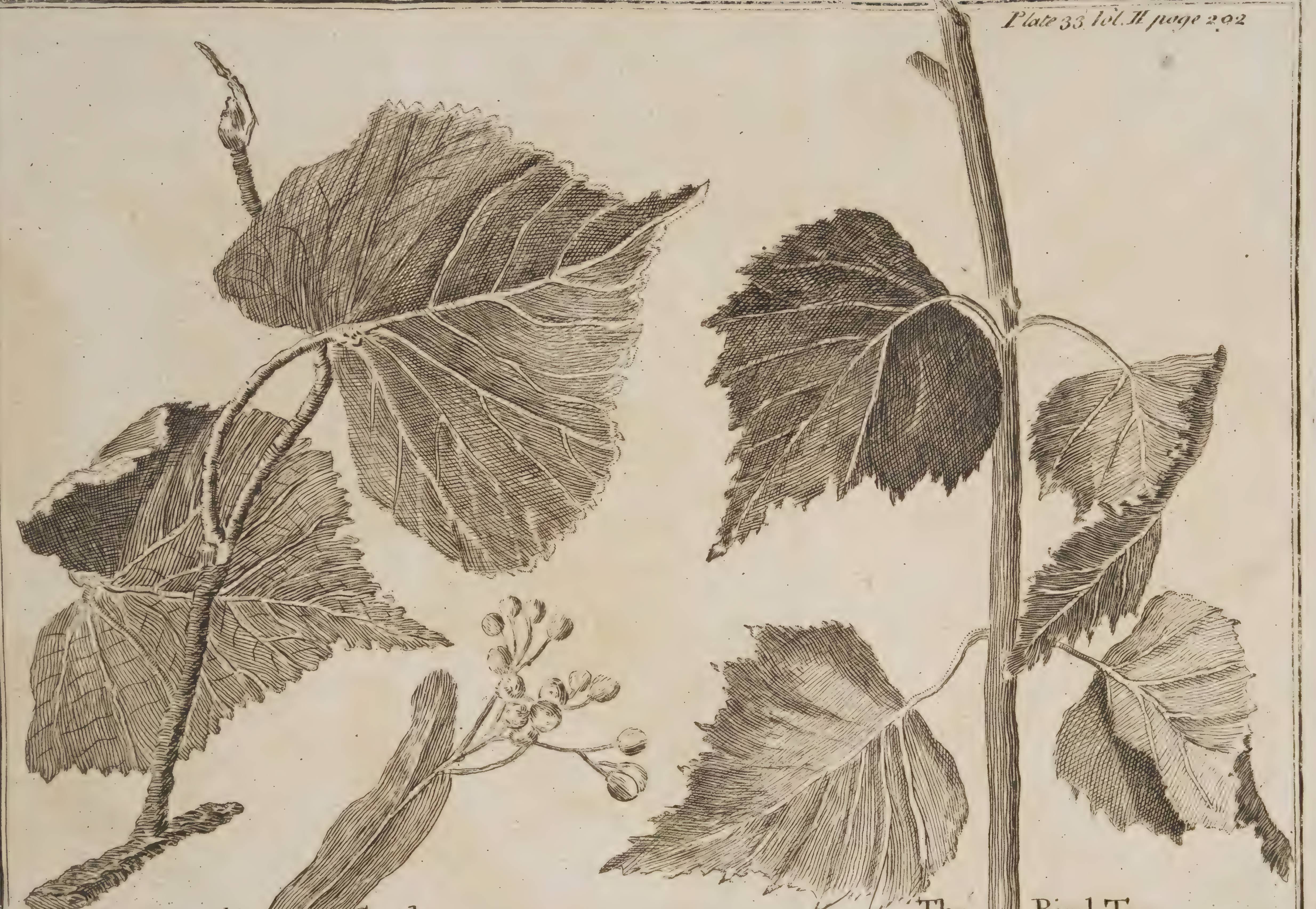
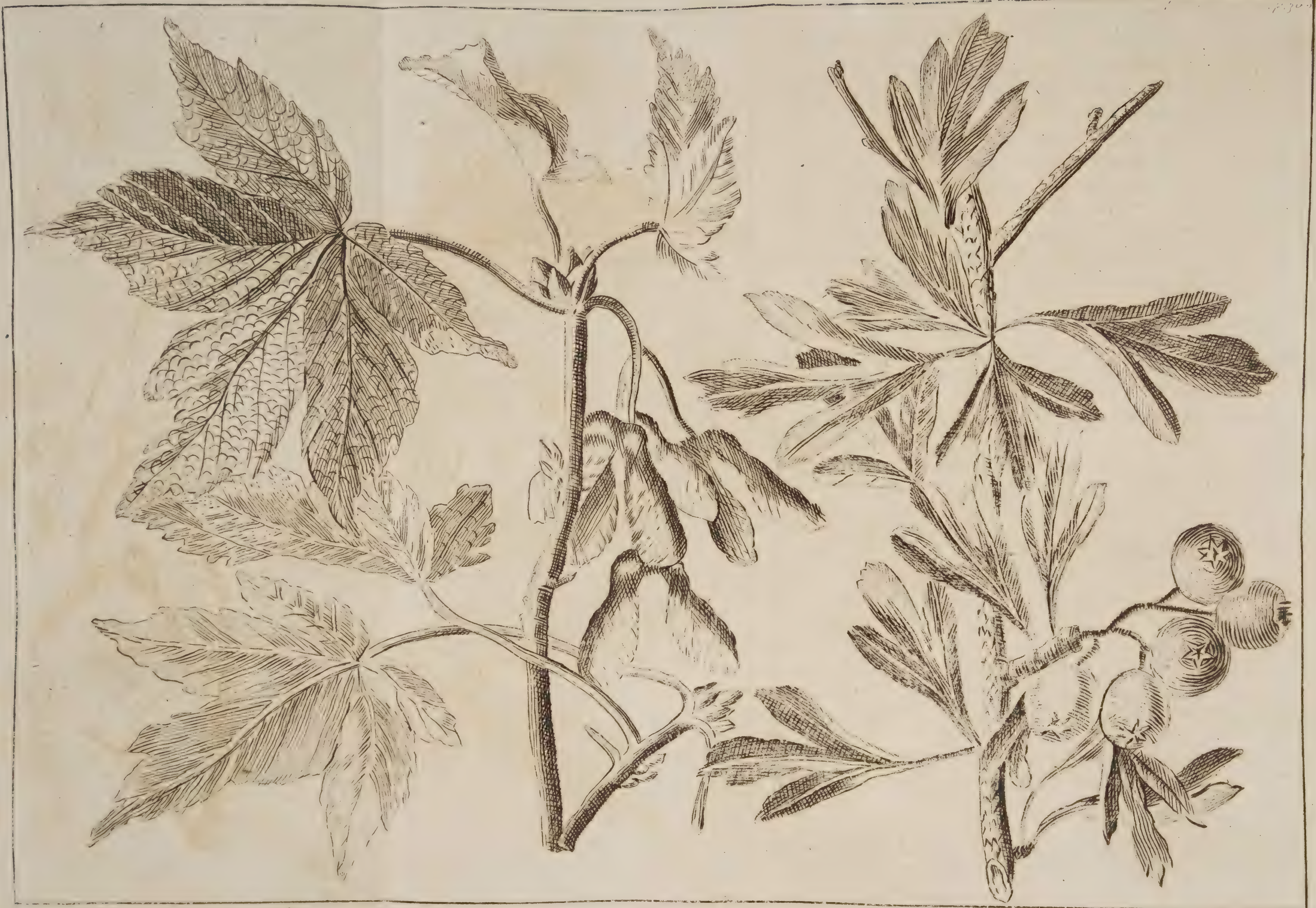


The Linden Tree & it's Seed

The Birch Tree.

J Mynde sc.



The Greater Maple
falsly called the Sycamore tree

The Lazarole
or Neapolitan Medlar

I. Mynde sculp.

Handles for a variety of Inſtruments. The ſame Soil will alſo prove kindly to ſeveral reſinous Ever-Greens; as the Pine, the Cypreſs, the Larch-Tree; and eſpecially the Fir, whoſe Wood is of infinite Uſe to the Joiner.

The Pine.
The Cypreſs.
The Larch-Tree
The Fir.

The Deity hath not only diverſified the Species of Plants, in proportion to our different Neceſſities, but has likewiſe accommodated thoſe Plants with a proper Variety of Soils. Man therefore, who may eaſily be ſenſible of this apparent Ordination and Conformity, has no Privilege to complain of the Sterility of the Land he enjoys. If his Patrimony proves inſufficient for his Support, he can only reproach himſelf either for his Indolence in its Cultivation, or his Unreaſonableneſs in requiring thoſe Productions which are not adapted to the Soil he poſſeſſes.

Chevalier. You have mentioned ſeveral Sorts of Trees, Sir, that always retain their Verdure; but what particular Advantage may we derive from the Diverſity of the Species?

Prior. While the Deity conſigns the Generality of Plants to kindly Repoſe in the Winter, in order to recruit the Vigour they had exhauſted in the preceding Seaſons; he perpetuates the Verdure of the Juniper, the Holly, the Ever-green Oak, and a Variety of other Species. And though this Proceeding makes it evident, that his Operations are not ſubjected to any Laws or Neceſſity; it is equally certain, that they are always adapted to the Welfare of Man; and that he never exerts them with the leaſt Appearance of Caprice. Were it not for this unchanging Verdure, what Expedients could occur for the Preſervation of the Hare, the Hart, the Roe-Buck, and a Number of other Animals, that contribute to the Nouriſhment of Man, without creating him any preparatory Cares for their Subſiſtence?

This Truth will be rendered ſtill more apparent, if we take a View of thoſe reſinous Trees that fill the *Northern* Regions, and whoſe Subſtance is impregnated with an Oil that ſecures them from the Penetrations of Rains and Froſts. The great Creator has formed theſe immortal Foreſts, to cheriſh the Inhabitants of thoſe rigorous Climes with a reviving Warmth.

The ſame Almighty Being diſplays another Inſtance of his Goodneſs and Independency, in cauſing the Foreſts to adminiſter Support to a Multitude of Animals, who are not permitted to claim their Suſtenence from Man. He has prepared a ſafe Retreat for theſe Creatures, in the deep Receſſes of Woods; and he there ſupplies them with a Sufficiency of all they need. He alone arrays them with their proper Habits; his unaſſiſted Providence nouriſhes the Lions, and Tygers, and Leopards; the Harts, the Roe-bucks, and Does, the Wild Boars, the Wolves, and a ſurpriſing Variety of Birds. He lodges them in ſuch Manſions as are commodious, and multiplies each Species, in their ſeveral Progenies. To ſome he has imparted Strength, others he has indued with Subtilty; he diſtinguiſhes ſome Tribes by their Agility, and renders others dreadful by their native Rage; that Man may be alarmed from the Indolence, into which he would be lulled by too much Security.

The Deity cauſes all theſe Animals to exhibit to Mankind the Appearance, either of an advantageous Prey, a formidable Foe, or ſome acquirable Conqueſt. He ſtrengthens him by the Exerciſes of the Chace, and qualifies him for oppoſing a more dangerous Enemy, in any neceſſary Conjuncture. He habituates him, by an innocent Probation, to defend himſelf, in the moſt effectual manner, againſt a lawleſs Invader of his Property. All the Animals, therefore, as well thoſe that nouriſh us, as thoſe that are injurious to us, may be conſidered as ſo many real Preſents from the Creator.

Our Dominion over theſe Creatures is rendered moſt conſpicuous in the Chace. In vain do they ſpring aloft in the Air, or ſhroud themſelves in the intricate Receſſes of their Wilderneſs. When they even plunge into the Bowels of the Earth, they are ſtill incapable of eluding our Purſuit. We can draw them from their Retreats, either by Dexterity, or Force. The Bark of the Holly, and the ſmall Berries of Miſleto, that twines about the Oak, and ſome aged Apple-Trees, furniſh us with a Glue that fetters the Wings of little Birds; and we can ſurpriſe the largeſt of theſe Animals by a variety of Snares, and other artful Inventions. We can eaſily allure to our Nets, Mallards, and wild Geeſe, Curlews, Teals, and Lapwings; Plovers, Ortolans, and all other Birds of Paſſage. We can cauſe a Ferret to diſlodge the Rabbit from her ſubterranean Retreat; and the Badgers and Foxes have no Aſylum that can ſecure them againſt the Aſſaults of the Terrier. We have Birds and Dogs of all Sizes, to whom we can communicate our Intentions, in a Language they underſtand; and according to our Manner of intimating our Orders, either by the Horn, or the Voice, they launch after their Game; they unravel the Track, they wind about, they return when we call them off; they rectify their Defaults, and aſſiſt us with the Keenneſs of their Sight, the Accuracy of their Scent, and the Agility of their Motions, to diſtinguiſh and ſecure the Game we are ſo deſirous of obtaining.

Inſtead of the Bow and Arrow, we have, at laſt, furniſhed ourſelves with Arms that are more expeditious in their Execution, and whoſe Effects are inevitable. We may aver, with ſome Appearance of Truth, that we now Diſcharge a Volley of Thunder, ſince we launch through the Air a flaming Shaft that transfixes Animals at a great Diſtance, and frequently lays them dead at our Feet, before they could once be alarmed at the Sound, and the Flaſh which accompanied the Shot.

Chevalier. I judge, by the Delight I experience in Hunting, that thoſe, who are debarred from that Recreation, are treated with Injuſtice. For what Reaſon, Sir, are the Pleaſures of the Chace uſually accorded to none but the Nobility?

Prior. Man is incapable of living alone; and Society, which is ſo neceſſary to his Welfare, would be entirely diſconcerted, if all the Individuals, who compoſe it, were armed. I may add too, that Hunting is an improper Recreation for the lower Claſs of People, becauſe it would infallibly divert their Attention from Trade, and the Cultivation of the Earth. It likewiſe comports as little with the Conditions of Eccleſiaſticks. Their Time ought to be devoted to the People, who have exempted them from the painful Solicitudes of Life, by the Liberality of their Alms; in order to facilitate their Exerciſe of Prayer, their Application to Study, and their Performance of the miniſterial Functions, with which they are charged. The Chace has, therefore, been wiſely reſerved for thoſe, who are to govern and defend the Community. Perſons of this

Rank, may acquire, even in their Hours of Leiſure, and amidſt the noble Pleaſures they are privileged to enjoy, the amiable Qualities of Fortitude and Patience, by which they ought to be diſtinguiſhed from the reſt of Mankind. The Chace habituates them to Activity and Attention; it inſpires them with Prudence, and a formidable Intrepidity of Mind, which renders them incapable of ſhrinking from any Danger or Fatigue.

The END *of the* SECOND VOLUME.

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